



Center for Army Leadership

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Advanced Learning Theories Applied to Leadership Development

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INTRODUCTION

The purpose of this task was to conduct research to exploit learning technologies to improve leadership development. The goal of the project was to implement an innovative training approach that incorporated advanced learning technologies/theories to encourage faster, deeper learning with respect to “Influencing Others.” In this effort we sought to identify, adapt or develop an application of an advanced learning theory and evaluate the impact of the application as it relates to leadership.

In this effort we performed the following tasks:

- Defined leadership as “influencing others” for the purpose of this project
- Defined deep learning
- Reviewed advanced learning theories
- Developed a pilot training application
- Implemented the training application
- Evaluated the training application.

This paper provides the theoretical background of our work as well as describing our development and evaluation process in the following four chapters:

- Background on leadership and advanced learning
- Development and implementation
- Results
- Recommendations

BACKGROUND ON LEADERSHIP AND ADVANCED LEARNING

In this chapter we describe our definitions of leadership and deep learning as well as provide an overview of advanced learning theories.

LEADERSHIP

We focused our research on a specific aspect of leadership, “influencing others.” Understanding and defining “influencing others” can be informed by published research and theory about leadership. Early research in the area of leadership concentrated on universal styles of leadership. This work tried to determine which leadership traits or behaviors were the most advantageous with little, if any, regard for situational constraints that could impact the effectiveness of a given leadership style, trait, or behavior. Later work by researchers in the area of leadership such as Dansereau, Graen, and Haga (1975), examined the relationship the leader forms with each subordinate and how this relationship determines the effectiveness of a given leadership style. More recent research by Graen and Scandura (1987), Gerstner and Day (1997), and Townsend, Phillips, and Elkins (2000) has examined how this one-on-one relationship, or dyad, between the leader and subordinate impacts the effectiveness of a given leadership style across a range of situations and subordinate behaviors.

According to Dansereau et al. (1975), understanding that leaders form different relationships with each subordinate allows for the study of leadership at the level of the dyad. By introducing leaders to this concept of the dyad, leaders can achieve improved results by using the most appropriate leadership style with a given subordinate. From the perspective of leader-member exchange theory (LMX), the most effective, long-term leadership method will depend largely on situational factors and the personal relationship the leader has with the subordinate (Graen & Scandura, 1987; Townsend et al., 2000). Recent research has demonstrated that organizational and situational characteristics will, to some degree, impose restrictions on the leadership style that a superior is able to employ. For example, supervisors with less organizational power will have fewer resources to provide to subordinates. These supervisors may also be limited in the leadership style they are able to employ due to constraints placed on them by organizational policies and procedures related to work methods or personnel issues (Fiedler, & Garcia, 1987; Jablin, 1982).

Therefore, leaders that are effective at influencing their subordinates will understand that there is no one best leadership style to employ across all subordinates and across all situations. Effective leaders will understand that the unique characteristics of the subordinate, (e.g., competencies, interests, personality), situational factors (e.g., organizational and situational constraints), and the relationship that the leader forms with the subordinate will shape the type of leadership style that is most effective.

The United States Army has also sought to better understand how leaders influence others. Army leadership doctrine currently defines leadership largely as an influencing function:

Leadership is influencing people – by providing purpose, direction, and motivation – while operating to accomplish the mission and improving the organization. (FM 22-100, p. 1-4).

In recent research, the Army identified eight core leadership competencies that identify how to influence others (Horey, Fallesen, Morath, Cronin, Cassella, Franks & Smith, 2004). The eight competencies are: leading others to success, exemplifying sound values and behaviors, vitalizing a positive climate, ensuring shared understanding, reinforcing growth in others, arming self to lead, guiding successful operations, and extending influence. Ongoing research with this competency model is assessing the evidence for construct and criterion-related validity. Understanding the situations and circumstances in which the application of the competencies might differ is also of current interest to the Army. Yukl (2002) also states that influence is the essence of leadership and that a leader must influence others to carry out requests or implement decisions to be effective as a leader (Yukl, Chavez, & Seifert, in press). Interpersonal influence (i.e., influencing others) can produce one of three outcomes (Yukl et al., in press). The first outcome is resistance, where a subordinate is opposed to the leader's request and will try to avoid doing it. The second is compliance, where the leader provides a direct order to the subordinate and the subordinate carries out the order. This type of influence is often appropriate for the military as the leader faces direct, immediate, high-stakes situations where accomplishing the mission at all costs is what matters. However, Yukl et al., (in press) have found that while compliance may be effective, it may also result in the subordinate becoming more apathetic and exerting less effort to future requests. The third outcome is commitment, where the subordinate has a favorable attitude towards the leader's request and puts forth the necessary effort to carry out the request.

While commitment has been examined in the literature as a favorable *outcome* of influence, we are going to examine commitment in a slightly different manner. Specifically, we are going to examine commitment as a *moderator* (rather than an outcome) between the leader and the subordinate's compliance to the leader. The rationale for examining commitment and compliance in this manner is that we are hypothesizing that commitment to the leader can lead to greater compliance to specific requests by the leader. Additionally, by attempting to increase commitment, there can be benefits for both the leader and the subordinate. For example, the leader, by taking the time to understand what is important to the subordinate and appreciating the subordinate's point of view, may be better prepared when they need compliance from their subordinates. Specifically, the leader will have a better understanding of what type of transaction will elicit the best response from their subordinates and use this to influence them. From the subordinate's perspective, if the leader has worked to increase commitment, the subordinate may be more willing to remain committed to the leader and willing to exert additional effort when needed. To summarize, while the ultimate goal of the leader's influence is for the subordinate to

be compliant to the leader's request, an increase in commitment by the subordinate may decrease some of the negatives aspects associated with compliance (e.g., subordinate is less apathetic and exerts more effort to future requests).

Our operationalization of influence focuses on commitment and how commitment impacts a subordinate's compliance to a leader's requests. This type of influence necessitates that the leader understands what is important to the subordinate, appreciate the subordinate's point of view, and act upon this information. This definition contains a cognitive aspect, which is understanding the subordinate's point of view and knowing how to act upon that information. There is also a mastery aspect to increasing commitment, which is being able to process all the information in real time. That is, the leader must be able to use his or her knowledge of and experience with subordinates (as well as experiences with previous subordinates) to understand what requests will and will not optimize compliance (and subsequently increase commitment) and be able to do this in real time. In order to successfully accomplish this, the leader will need to gain a deeper understanding of how to increase his or her subordinate's commitment that enables him or her to quickly build upon their interactions with their subordinates as well as their past experiences (of what did or did not work in certain situations) in order to determine the best approach to the situation in real time.

DEEP LEARNING

Deep learning is the acquisition of higher order skills by relating concepts to existing experience, distinguishing between new ideas and existing knowledge, and critically evaluating and determining key themes and concepts (Entwistle & Ramsden, 1983; Ramsden, 1992). Deep learning is an important construct to understand because it is key for the transfer of training of complex skills (Ford, Smith, Weissbein, Gully, & Salas, 1998). Leadership, as described earlier, is a highly complex set of behaviors, so any training in this domain must include and encourage deeper processing of information, resulting in a deeper level of learning. For example, a leader's ability to use their knowledge of and experience with their subordinates to understand what requests will and will not optimize compliance in real time will require a deeper level of learning. Specifically, the leader will need to develop a deeper understanding of how to determine the best approach to a situation in real time (based upon past interactions and experiences with subordinates).

Deep Learning Taxonomies

Learning, and the depth with which one learns, has been described, categorized, or arranged in taxonomies by several different researchers (e.g., Gagne, 1985; Bloom, 1956; Merrill, 1983; Piaget & Inhelder, 1973; Saljo, 1979). One of the more common learning taxonomies was developed by Bloom (1956). Bloom's taxonomy represents six progressively more intense "educational objectives": knowledge, comprehension, application, analysis, synthesis, and evaluation. Knowledge is defined as the knowledge of dates, events, facts, and

subject matter. Comprehension is the understanding of information and meaning of informational materials. Application involves the use of previously-learned information, methods, concepts or theories in new situations (especially for problem solving). Analysis involves breaking down information into parts, seeing patterns, and understanding the organizational structure of information. Synthesis involves the ability to apply prior knowledge and skills to produce new or original ideas, generalizing information or drawing conclusions, and relating knowledge from several areas. Finally, evaluation involves the ability to assess the value of information or theories, compare and discriminate between ideas, and make decisions based on reasoned argument.

Saljo (1979) suggested another learning categorization that has been directly related to deep learning. He defined five categories of learning as:

1. A quantitative increase in knowledge. Acquiring information.
2. Memorizing or storing information that can be reproduced.
3. Learning as acquiring facts, skills and methods that can be retained and used as necessary.
4. Making sense or abstracting meaning. Relating parts of the subject matter to each other and to the real world.
5. Interpreting and understanding reality in a different way. Comprehending the world by re-interpreting knowledge.

Both Bloom's (1956) and Saljo's (1979) theories capture components of deep learning. In Bloom's taxonomy deep learning begins at the application level and continues through the evaluation level. In Saljo's categories, deep learning is the type of learning described by categories 4 and 5 (Atherton, 2004). The notion of deep learning has also been described independently of these learning taxonomies. Others have examined deep learning as the mechanism by which one achieves the level of understanding described above. Specifically deep learning has been characterized by:

- Integrating new information with prior knowledge and experience (Elliot, McGregor, Gable, 1999)
- Challenging the veracity of information encountered (Elliot, McGregor, Gable, 1999)
- Relating knowledge from different disciplines (Ramsden, 1988)
- Organizing content into a coherent whole (Ramsden, 1988)
- Synthesizing information, or applying the learned principles to different contexts (Gist & Stevens, 1998).

One of the main processes associated with deep learning is integrating new information with prior knowledge. The importance of prior knowledge has been captured by cognitive researchers. Prior knowledge has been described as reflecting existing cognitive structures that are the “principal factor influencing the learning and retention of meaningful new material”

(Hannafin, Hill, Oliver, Glazer, & Sharma, 2003: 246). Using examples of chunking and interactive imagery, Winn and Snyder (1996) concluded that a person's ability to remember new pieces of information is improved if the pieces of information are related to each other or related to a person's existing knowledge.

The mechanism by which new information is integrated into existing information is described in detail by cognitive psychologists in their description of networks models. Their descriptions also provide insight into how a learner might organize content, relate knowledge from different disciplines or synthesize information into different contexts. Network models of memory theorize that information is stored in a “netlike structure” that links concepts and ideas in a person’s memory. This network can contain different types of links. Superordinate links show that a concept is connected to a broader concept (e.g., a keyboard is a component of a computer). Modifier links describe the properties of a given concept (Matlin, 1989). For example, the property “green” is connected to “Army uniform” by a modifier link. New information is incorporated into the network by adding additional links to existing information, making connections in more than one place when warranted. Network models posit that thousands of connections are being made per second to build complex knowledge of a topic area.

Linking Deep Learning with other Constructs

Deep learning is an integral part of a training program because it relates to, and in fact provides a base for, other constructs that are key to effective learning in complex situations. Specifically, deep learning closely relates to mastery orientation, and subsequently, metacognition, self-efficacy, knowledge structure, performance, and transfer of training. Figure 1 below illustrates the relationships between deep learning and other key training constructs.

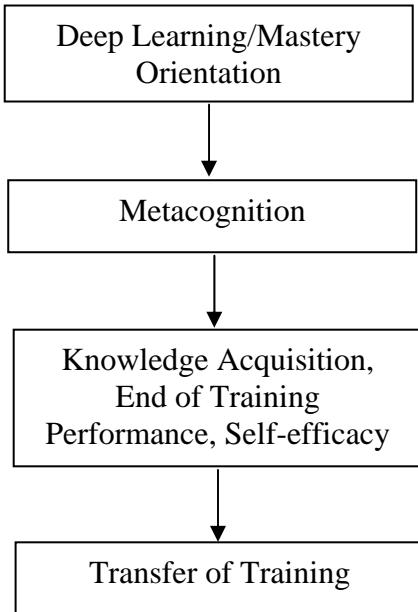


Figure 1. (Adapted from Ford et al., 1998)

The use of deep learning, in part, defines mastery orientation (e.g., Ford et al., 1998; Kozlowski et al., 2001; Meece, 1994), a construct that has received a lot of attention because of its positive relationship with transfer of training (e.g., Ford et al., 1998; Kozlowski et al., 2001). Deep learning or mastery orientations are associated with metacognition, which is defined as an individual's knowledge and control over his or her cognitions (Flavell, 1979). Deep learning inherently involves gaining an understanding of a given topic, and this understanding is an integral part of an individual's ability to control his/her cognitions regarding the topic.

Metacognitive activity, in turn, is important because individuals with greater metacognitive skills are expected to learn more effectively, particularly in the acquisition of more complex skills (Ford et al., 1998). While metacognition is technically a “deeper” form of processing information, metacognitive activity specifically allows individuals to monitor their progress, determine when they are having problems, and adjust their learning accordingly. As such, metacognition is associated with knowledge acquisition, skilled performance at the end of training, and self-efficacy (Ford, et al., 1998). These factors are all subsequently linked with transfer of training (Colquitt, LePine, & Noe, 2000; Ford et al., 1998; Kozlowski et al., 2001). Metacognition is not possible, however, without the thorough understanding of a topic made possible by deep learning.

Deep learning is implicit in many of the learning theories of interest in this study. Learning to learn, for example, involves learners essentially developing metacognitive skills so that they can adjust their strategies as appropriate. Similarly, learning from experience involves learners being able to incorporate new knowledge into existing knowledge structures. Deep learning is a necessary component of all of the learning theories of interest because it serves as a

precursor to the type of cognition that enables individuals to learn and perform in complex situations, such as leadership roles.

REVIEW OF ADVANCED LEARNING THEORIES

We identified relevant theories of learning to inform the development of a learning application. We considered a variety of learning theories and selected those that were most appropriate for or focused on more advanced or complex skills and which incorporated deeper learning. These advanced learning theories have multiple definitions; hence we have attempted to summarize across the available literature to capture the essential components of each theory.

Advanced learning theories are particularly relevant and timely to teaching leadership skills within the Army for two reasons. First, as Soldiers move into leadership positions, the importance of cognitive and interpersonal skills training takes on greater importance than physical or technical skills. Secondly, as the future Army will likely focus on increasing levels of decentralized leadership and decision making, cognitive and interpersonal skill training will become increasingly more important. Many advanced learning theories address training complex skills such as those that are needed by current Army leaders and those skills that will be important for future Army leaders.

We reviewed advanced learning theories from the training, education, and cognition literature including:

- Cognitive learning strategies, scaffolding, and cognitive tutoring
- Collaborative learning and virtual learning groups
- Constructivism/learner-centered education
- Experiential activities
- Learning to learn training
- Self-explanation strategy training
- Cognitive flexibility theory.

While each theory has specific merits, learner-centered education tends to be an overarching theme that appears in one form or another in each of the advanced learning theories we examined. Some theories focus on knowledge building, others are more relevant to interpersonal skill, and still others focus on learning through experience or interacting with other learners. The theories are not mutually exclusive and our final learning application incorporated themes from several learning theories. It is important to note that on a conceptual level there is quite a bit of overlap between the theories, though the words used to describe the theories often vary. In addition, the theories originate from different fields of study and are not necessarily parallel, making comparisons between them somewhat murky. With these caveats in mind, we will review each theory, and then we will explore the commonalities across theories.

Cognitive Learning Strategies, Scaffolding, and Tutoring

Cognitive learning strategies, scaffolding and cognitive tutoring are three interrelated concepts that focus on assisting students in the learning process. Learning strategies tend to involve processing information, while scaffolding and tutoring are tools that assist students in advancing their expertise in an area.

Learning strategies describe plans for reaching a learning goal. Cognitive learning strategies are types of learning strategies that help the student acquire, retain, and retrieve information. Examples include rehearsing material to be learned, putting new information in a context of previously learned information, or organizing information. Metacognitive learning strategies, on the other hand, deal with “learning to learn.” These strategies focus on developing students’ ability to be students: teaching them to regulate their cognition, motivation, or behavior and, through these processes, enhance performance and achieve educational or developmental goals.

The concept of “scaffolding” in learning has been described in various ways, but the term generally refers to some sort of support system that helps students learn as they move from simple to more complex material. This can take the form of temporary assistance from tutors (which is eventually removed as the student’s knowledge improves), in some cases targeted at specific points in a curriculum, or a learning structure imposed by a teacher to help the student learn the material.

Cognitive learning strategies and scaffolding are broad processes that have numerous applications to the domain of education, including tutoring. While human tutors implicitly apply some of these concepts based on their judgments of what will help a student most, researchers have also applied various learning strategies to the design of technology-based tutoring systems. Research has shown that most of the activity in tutoring sessions is driven by the student, not the tutor. Tutors offer “guided learning by doing”; they work by allowing learners to do as much of the work as possible, but offering guidance when students veer too far off the correct path. They provide constructive feedback when a student makes a mistake and confirmatory feedback when the student takes a correct step (Merrill, Reiser, & Merrill, 1995). Tutors are more adept at pointing out substantive errors than students are in finding their own substantive errors. In this way, tutors support, or scaffold, the student’s efforts by guiding the student in the appropriate direction (Merrill et al., 1995).

To determine how a tutor can help a student learn, it is necessary to decide which learning theory the tutor should emulate. Tutoring systems have been developed based on several different learning theories. One example is Advanced Computer Tutoring theory (ACT), which states that information enters the system as declarative knowledge and that cognitive skill is developed by converting the declarative knowledge into “production rules,” or procedural knowledge (knowing how to do something). The process by which students interpret information

into problem-solving behaviors is called knowledge compilation. The more a student practices, the finer and more successful the rules become for converting declarative knowledge into procedural knowledge. Under this theory, rules are generated by applying declarative knowledge to solve problems. This implies that tutors have the maximum potential impact in fields where problem-solving behaviors can be broken down into production rules (Anderson, Corbett, Koedinger & Pelletier, 1995).

Self-explanation, a type of metacognitive strategy, is another theoretical approach to implementing a tutoring system. Self-explanation theory purports that students learn best when they are forced to explain their own problem-solving steps. In this case a tutor would act less as an advisor and more as a barrier students have to overcome at each step of the process before they can move on. The tutor's design forces students to master declarative knowledge sufficiently; in effect, the students play the role of the teacher by explicitly explaining every step (Aleven & Koedinger, 2002).

Collaborative Learning

Collaborative learning involves the joint construction of meaning through interaction with others and can be characterized by a joint commitment to a shared goal. Learners work together on a topic, exchange their opinions about a subject matter, clarify the meaning of knowledge concepts, and/or aim for a joint problem solution. Web-based collaborative learning has great potential for knowledge acquisition. However, it has different characteristics from conventional learning scenarios. Hron and Friedrich's research (2003) confirmed differences with respect to social communication (synchronous and asynchronous communications, eye contact, non-verbal and tone hints), message exchange (text chat and real-time chat), cognitive load (necessary computer literacy) and participation of the learners (discussion, reading and asking questions). Instructional supports can be considered to help cope with the potential problems caused by the differences between web-based collaborative learning and face-to-face social communication.

Early research argued that computer-mediated communication had a number of advantages over existing communication media for supporting collaboration. Advantages included allowing time for deliberation, providing the opportunity for group members to post opinions simultaneously, and permitting groups more interaction via computers by having more equal participation among members. However, a number of papers emerged that began to raise doubts about this positive view. These papers reported difficulties using computer-mediated communication to support collaboration.

One recent innovation in collaborative learning is the “virtual learning environment” (VLE). VLEs vary in form, but are usually some type of software application that serves as an interface for providing course content. They may include facilities for online student discussion and debate, electronic articles associated with the course, and space for students to interact

further about course topics. Characteristics of VLEs include the sharing and discussing of knowledge, the support of learning by doing, the enhancement of metacognitive group processes, and the formation of a group identity. The incorporation of virtual learning environments into classes provides many advantages for teachers and students. There are practical reasons that are appealing, such as granting students the flexibility to look at course materials at their convenience, the ability to access information from any computer, and the efficiency of reaching greater numbers of students in geographically dispersed locations. Some also argue that virtual environments allow for a greater degree of collaboration among learners and can provide support for learners to gain a deeper understanding of subjects (Gibbs, 1999).

Constructivism/Learner Centered Education

Constructivism is a theory of knowledge and learning that posits knowledge is actively “constructed” by the learner (Dimock & Boethel, 1999). While there is some disagreement among researchers and practitioners in the literature, all agree that learners build their understanding of the world through actively processing information and experiences. This implies that there is no single “truth,” because different people may construct information differently.

Major tenets of constructivism as described by Dimock and Boethel (1999) include:

- Learning involves building understanding and making sense of new experiences, not memorizing facts.
- Learning is embedded in the situation in which it was learned. Instead of learning a set of facts, learning should be in the context of a problem to be solved.
- Knowledge is constructed by the learner by making elaborations and interpretations as he or she learns. It is dependent on the knowledge and experiences the learner brings to the situation.
- Experience and prior understanding has a role in learning new information. We learn when we encounter something inconsistent with our understanding. However, people are resistant to changing their understanding.
- Social interaction has an important role in learning. Working on a problem with others or simply discussing an issue leads to deeper processing and understanding.

The main tenets of the constructivist approach to learning are reflected in the education of surgeons. It is critical that surgeons be able to learn and access vast amounts of information to diagnose problems and recommend the proper treatment. This information comes from classes, books, from other surgeons, and from experience. A long period of education is needed to become a surgeon. Students initially learn facts in a classroom setting and through reading. This forms the foundation of their knowledge. Then, they read case studies and do rounds with senior

surgeons to be exposed to how the facts are applied. They are taught using the Socratic approach, in which the student surgeons are given information about a case, and they are asked questions. Next, they solve cases themselves under the supervision of a more senior resident or surgeon. They listen to stories and experiences of other surgeons, which continue to build their tacit knowledge. Over time, as they get exposure to multiple cases involving the same medical problem they become “experts” themselves (Abernathy & Hamm, 1995).

Surgeons need to develop “intuition” by which they can see a patient and know quickly the cause of the problem and what the next steps should be (Abernathy & Hamm, 1995). As experts, they “see” what to do and do not have to go through a detailed problem solving process to come to a conclusion. Like experts in other fields, their information is so well organized that they are able to access it easily through pattern recognition (Abernathy & Hamm, 1995). Student surgeons take much longer to solve problems because they are pulling up large amounts of declarative information, but for most surgeons, this becomes unnecessary with more experience as knowledge is built up over time.

Surgeons thus construct their knowledge throughout a long learning process. They gain a foundation of knowledge upon which to add experiences. They learn additional information within the context of problems (or cases) that extends and builds their knowledge. They answer questions that require additional processing and connections to be built among various pieces of information. They learn by actually performing surgeries under the supervision of more senior surgeons. Each new experience provides more knowledge and builds expertise.

Experiential Activities

Traditionally, training was viewed as a discrete activity—a training seminar or training program—that happened once. But others have held the view that learning builds from life experience and that there is different knowledge to be gained through active participation in, as opposed to passive reception of, learning. Kolb’s (1984) model of experiential learning posits that concrete experience can stimulate learners to reflect upon that experience. That reflection leads to the refinement of existing concepts and the formation of new ones through which learners make sense of their surroundings. Learners then try out concepts by actively experimenting with them. Through these experiments, the cycle is continued with new concrete experience. Furthermore, this type of learning is something that employees engage in throughout their careers and on a continuous basis (McCauley, Moxley, & Van Velsor, 1998).

There are two types of learning from experience—one is simulations, and the other is learning from on-the-job experiences encountered every day. Both can be valuable tools in leadership development. Learning from experience involves the ability to:

- Recognize when new behaviors, skills, or attitudes are called for

- Engage in a variety of developmental experiences to learn new skills or test skills that are previously untested
- Develop and use a variety of learning tactics to acquire the new skills, approaches, or attitudes (Van Velsor & Guthrie, 1998).

Experiential learning rests on six assumptions: Learning (1) is a process, not an outcome; (2) derives from experience; (3) requires an individual to resolve dialectically opposed demands; (4) is holistic and integrative; (5) requires interplay between a person and environment; and (6) results in knowledge creation (Kolb, 1984).

Generally speaking, learning from experience, or encouraging learning from experience, involves conceptualizing participants as active learners, rather than passive listeners. It requires participants to listen, but also to interact frequently in simulated or actual situations to test skills or understanding and to spend a significant portion of time demonstrating their ability to apply concepts to real challenges (Fulmer, 1997).

Self-Explanation Strategy Training

Self-explanation strategy training contends that learners who explain examples to themselves learn better than those who do not (VanLehn, Jones, & Chi, 1992). Specifically, individuals who have explained examples to themselves while learning the desired content perform better when they are asked to apply their knowledge to solve problems. Additionally, the use of self-explanation strategy training to support learning has been found to be effective in both instances where the learners are directly applying the rules they have acquired (i.e., near transfer) as well as instances where the rules are more flexibly applied (i.e., far transfer; Atkinson, Renkl, & Merrill, 2003).

The literature on self-explanation has operationalized the manner in which individuals explain examples in a number of ways. This has included having the learners explain aloud their thought process as they work through examples (VanLehn et al., 1992); having students respond to initiating questions generated by a tutor (Chi, 1996); having student's justify the steps they took in solving the example problems (Atkinson et al., 2003); and by having student's take notes (Trafton and Trickett, 2001).

Cognitive Flexibility Theory

Cognitive flexibility theory (CFT) focuses on the transfer of knowledge and skills after the initial learning situation to more complex and ill-structured domains (Spiro, Feltovitch, Jacobson, & Coulson, 1992). Traditionally, learners will learn basic concepts and theories, in a linear manner and these concepts are organized into manageable categories. However, for more complex knowledge acquisition to occur, a nonlinear, multi-perspective learning approach is needed to accommodate the ill-structured domain in which the learning occurs. An ill-structured

domain is one in which a case or example of knowledge application involves multiple perspectives or schemas, and there are irregularities of certain occurrences across cases that appear to be similar. Examples of these types of ill-structured domains include medicine, history, and literary interpretation where there can be multiple perspectives on each case, and the cases are naturally occurring, which can allow for different outcomes each time (even though the cases appear to be similar to prior cases; Spiro et al., 1992). In each of these instances, there is a realization that a single concept or direction is not feasible to address these situations. Because the transfer of knowledge will need to go beyond the learner's initial learning situation, CFT emphasizes the need to present information from multiple perspectives and to use multiple case studies that present diverse examples (Spiro, Feltovich, & Coulson, 2004).

To ensure that learners are able to transfer their knowledge and skills beyond their initial learning situation, Spiro, Coulson, Feltovich, and Anderson (as cited in Swindler, 2001) outlined the major principles of cognitive flexibility theory. These include:

- The oversimplification of instruction needs to be avoided because of the conceptual interconnectedness of ideas in more advanced knowledge domains.
- Learning activities must provide multiple representations of content instead of relying on single schemas to describe objects or events.
- Instructional materials should be case-based to acknowledge that a variety of cases can be used to illustrate the multiple perspectives of the content to be learned.
- Instructional materials should use practical, real-world context to allow for the transfer of basic concepts and theories to occur and be applied in dynamic situations.
- Knowledge should be constructed rather than transmitted to encourage learners to develop their own knowledge representations and to adapt their knowledge for future use in different types of situations.
- Instruction should support the complexity in comparing and contrasting the similarities and differences of cases in ill-structured learning domains by presenting multiple representations of the same information and different thematic perspectives on the information.

Learning to Learn Training

Learning to learn, or self-regulated learning, is a metacognitive approach conceptualized as being a type of learning that is greater than skill development alone. It involves as much personal development as skill development. The underlying assumption is that individuals are capable of learning how to actively regulate their cognition, motivation, or behavior and, through

these processes, enhance performance and achieve educational or developmental goals (Zimmerman, 1989).

Traditional training design focuses on declarative knowledge and training performance as the primary learning outcomes. However, training that encompasses a more “learning to learn” approach also incorporates learning strategies, structure of knowledge, and application of knowledge and learning strategies as part of the outcomes.

Learning to learn requires the learner to be involved in a self-reflective process of learning, or a conscious examination of his or her learning process (Rawson, 2000; Roth, 1996). Furthermore, it requires the learner to understand how these processes might be changed to fit the situation. Koutselini (1997) argued that it involves the development of a “critical spirit...the ability to think constructively under the pressures and limitations of life and to produce self-understanding” (p. 99).

Research demonstrates mixed results regarding the effectiveness of formal attempts to teach individuals to be self-regulated learners (Hattie, Biggs, & Purdie, 1996; Hofer & Yu, 2003; Simpson, Hynd, Nist, & Burrell, 1997). Training in learning to learn is thought to be most successful when it combines teaching the range of cognitive components of learning with a range of motivational components (Hofer & Yu, 2003).

A successful example of the implementation of this theory is the “Learning to Learn” course at the University of Michigan (Pintrich, McKeachie, & Lin, 1987). This course focuses on global processes such as comprehension monitoring, reviewing, and test-taking strategies. The class includes a lab where students learn about and demonstrate various learning strategies. They also have labs during which they analyze task demands of other courses and discuss how to apply and adapt different learning strategies for them, as well as how individual differences, such as efficiency in time use, workload, and learning style might impact this application. The topics covered in the class include: learning from lectures, learning from reading, learning from discussions, learning from peers, cognitive models of memory and memory strategies, problem solving and creativity, writing, self-management and time management, motivation and anxiety, and test-taking strategies. The emphasis of the class is on flexible use of strategies based on individual needs and task demands.

Students in this particular course demonstrated increases in mastery orientation and increased self-efficacy for learning. What has not been established is the extent to which strategies and motivational changes stemming from this type of course transfer to other situations (Hofer & Yu, 2000).

Summary of Learning Theories

There are several common themes among the advanced learning theories we reviewed, including:

- Providing experience-based learning
- Providing feedback to students
- Enhancing transfer of training to novel job situations through integration with experiential activities (e.g., simulations, games)
- Maintaining learner attention
- Motivating students to learn
- Making learning active
- Maintaining a learner-centered approach (American Psychological Association, n.d.).

Each theory has at least some components of deep learning. The cognitive component involves knowledge and skill acquisition, information retrieval, and attention. The experiential component includes practice, feedback, and tutoring. The experiential component basically involves interacting with training materials that simulate on the job experiences. Finally the motivational component involves relevance of the course material, self-efficacy and mastery orientation. In the theories we applied, the experiential component is drawn on by providing feedback to students, focusing on experience-based learning, and making learning an active process. Cognitively, these theories work by integrating experiential activities to enhance the transfer of training to novel job situations. The third branch of deep learning, motivation, is tapped by maintaining a learner-centered approach, maintaining learner attention. When cognitive, experiential, and motivational approaches are combined, the conditions are optimal for deep learning to occur.

Relevance of Theories to Current Project

Next, we considered how aspects of each theory were important to the project, including:

- Relevance to Army
- Applicability to leadership
- Evidence of performance improvement
- Adaptability to IT.

These four aspects led to a final consideration for each theory, which was summarized as relevance to the current project. First, we knew that any theory used in implementing a training application must be adaptable to the Army training environment and culture. Therefore, we rated the relevance of each theory to the Army using a three-point scale of low, medium, or high.

Second, the relevance of each theory to leadership was considered. Some learning theories focus on knowledge acquisition rather than skill development, and some are more appropriate to building technical skills versus interpersonal skills. As the purpose of this project was to develop a training application that will enhance leadership skills, we rated each theory (low, medium or high) in terms of its applicability to training leadership skills.

Third, we considered the evidence of performance improvement within the literature for each learning theory. We rated this category with one of five ratings. A rating of low, medium or high indicates that there was evidence of performance improvement and the effect of the improvement was low, medium or high. A rating of “Insufficient Information” indicates that there was not enough empirical evidence in the literature to make a rating about performance improvement. Finally, a rating of “mixed” indicates that there is not a clear trend indicating low, medium, or high performance improvement; rather, the evidence varies.

Fourth, we considered how adaptable a particular theory would be to technology. These ratings were low, medium, or high, based on how well it could take advantage of technology-based education tools. Though the eventual application was classroom-based, we took IT adaptability into consideration in anticipation of the possibility that the module could be adapted to a computer-based format in the future. Finally, we rated the overall relevance of each theory to the current project. This rating summarizes across the previous ratings as well as taking into consideration the feasibility of implementing such a theory within the confines of this study. Table 1 shows the ratings for each learning theory. For greater detail about these rating categories, please see Appendix A.

Theory	Relevance to Army	Applicability to Leadership	Evidence of Performance Improvement	Adaptability to IT	Relevance to Project
Constructivism/Learner Centered Education	High	Medium	Insufficient Information	High	High
Experiential Activities	High	High	Mixed	Medium	High
Cognitive Flexibility Theory	High	Medium	Insufficient Information	High	High
Cognitive Learning Strategies, Cognitive Tutoring, and Scaffolding	Medium	Low	Medium	High	Low
Collaborative Learning and Virtual Learning Groups	Medium	Low	Mixed	High	Low
Self-explanation strategy training	Low	Low	Mixed	High	Low
Learning to Learn Training	Medium	Medium	Medium	Medium	Medium

Ratings = High, Medium or Low. For “evidence of performance improvement,” there are two additional ratings – Mixed and Insufficient Information

Table 1. Ratings of learning theories.

The three theories rated most relevant to the current project were constructivism/learner centered education, experiential activities, and cognitive flexibility theory. Those theories were all rated highly in relevance to the Army, relevance to the project, and were rated high or medium in relevance to leadership and relevance to IT. Therefore, those three approaches were all used heavily in the development of our module. Because of the strong applicability of these theories, we felt there was a good opportunity to create meaningful learning, and also to add to the research on performance improvement using these learning theories. However, our module also incorporated elements of the other theories, including cognitive learning strategies, collaborative learning, and self-explanation strategy training. The only approach that was not truly utilized was learning to learn training, since this technique is a gradual building process that could not be incorporated in the timeframe of our course.

DEVELOPMENT AND IMPLEMENTATION

SELECTION OF AUDIENCE

In pilot testing this module, we chose to utilize students currently enrolled in L310: Introduction to Successful Negotiations, an optional negotiations course that is part of the Command General Staff College (CGSC) curriculum. There were 28 students total, divided into three sections. We chose to use this population for several reasons. First, the pilot came at the end of a longer negotiations course, so the students had a uniform background in the mechanics of negotiation. In addition, the rank of class members was ideal for this module. The class was comprised of primarily Majors, a group to which the module content was highly relevant because they are regularly in situations that require influencing others. Majors are in positions where they have legitimate authority over more junior Soldiers, but run the risk of depending too heavily on giving orders rather than using other influence techniques. They are also in a position where they must, at least occasionally, work with other branches of the military or civilians, some from other countries, where the chain of command does not apply. For this reason, the content of the module was highly relevant. In addition, the rank of the students ensured that in discussions or exercises that require drawing from experience, the students would have relevant examples and experience. The combination of these factors made this group an ideal sample.

SELECTION OF INFLUENCE IN MULTIPARTY SITUATIONS

We chose to focus this module on influencing others in multiparty situations. We did this for several reasons. First, multiparty negotiations lend themselves to a higher level of interaction, a key component of advanced learning theories such as collaborative learning and constructivism. In addition, during the course of the module we were able to move from influencing in a one-on-one situation to more complex scenarios so that the students were able to build on what they had done in the previous assignment or activity. Finally, influencing in multiparty situations was a natural fit into the larger negotiations course, fulfilling a requirement for our using this particular sample and enabling us to build on knowledge that the students had gained from previous lessons in the course.

DESCRIPTION OF TRAINING CONTENT AND EXERCISES

There were three learning objectives of this module:

- To understand the value of influence and how it relates to gaining commitment from others
- To understand the difference between influencing individuals and influencing in a multiparty situation
- To increase awareness of strengths and developmental needs related to influence and to improve participants' ability to influence others.

To achieve this, the team designed a module with multiple components that directly link with advanced learning theories, such as constructivism, experiential learning, and collaborative learning. The module was comprised of three role plays, two homework assignments, and guided discussions. The activities were specifically designed to elicit increased ability in influencing others by applying the advanced learning theories reviewed in Chapter 2. Pre- and post-tests were incorporated into two of the role plays and were used to assess changes in influencing skill. The module was led by a senior Caliber/ICF staff member with Army experience and who is a former West Point instructor.

In this section we describe the components of the module and how they relate to advanced learning theories. For each activity we provide a description on the activity, development of the activity, and how the activity relates to advanced learning theories. Appendix B includes a table with a more detailed outline of the module. There is some overlap in basic tenets of the theories, so in many cases several learning theories address a major module activity. For example, working with others to build understanding around and make sense of an experience is part of cognitive learning strategies, collaborative learning, and constructivism.

Role Plays

Harborco and Radwaste Role Plays. The Harborco and Radwaste role plays were used both as a medium for experience in multi-party negotiations and as the pre- and post-tests for the module. While using two different role plays for the pre- and post-tests was not ideal for measurement, it was necessary because participants would already be privy to other parties' underlying interests and potential outcomes if they were to participate in the same role play twice. Both role-plays are from the Harvard Program on Negotiation. Harborco is a consortium of development, industrial, and shipping concerns interested in building and operating a deep draft port. It has already selected a site for the port, but cannot proceed without a license from the Federal Licensing Agency (FLA). The FLA is willing to grant Harborco a license, but only if it secures the support of at least 4 of 5 other parties. The parties must negotiate/influence in order to ensure that the Harborco proposal meets their interests and concerns. In Radwaste, the state is required by federal law to site a low-level radioactive waste (LLW) disposal facility within a year. The State Regulatory Agency responsible for siting the facility must develop a set of criteria. This agency is empowered to decide the criteria on its own, but would prefer to have these negotiated by parties specifically concerned about this issue of low-level radioactive waste. Seven stakeholder groups have an interest in the negotiation. If at least five of the seven agree to a set of ten siting criteria, these criteria will be adopted by the State Agency. Parties must negotiate/influence in order to ensure that the Radwaste criteria meet their interests and concerns.

After each of these role plays, the instructor facilitated a debriefing. During the debriefing, participants were asked not only what happened, but were asked why they chose to

try different tactics and to analyze what worked, what did not work, and why it worked or did not work.

The role plays were an experiential activity, and the guided discussion during the debriefing session allowed participants to process the experience on a deeper level than if they had simply engaged in the role play and reviewed the results. Specifically, our debrief required that participants: 1) explain why they took a particular approach, eliciting self-explanation theory and 2) make sense of the experience through receiving feedback from peers and the instructor on the effectiveness of that approach, as well as giving feedback on others' use of tactics, eliciting constructivism and collaborative learning.

Iraqi Role Play. The Iraqi role play was based on a true story taken from a research project done for the Army Research Institute (ARI). The Leader Stories project involved interviewing Soldiers returning from Operation Iraqi Freedom and Operation Enduring Freedom to collect stories exemplifying leadership in a current wartime setting. The team decided to use one of these as the basis for a role play because of the relevance to situations that the students had either recently been in or would be in soon. The stories were reviewed by the team for relevance to the current effort, and one that illustrated a situation in which a leader had to effectively influence others was chosen. Next, the selected story was adapted into a role play, and the roles were developed based on actual groups of people from the story. All the parties had to come to an agreement on how to handle several issues at an Ammunition Storage Point in Iraq. The two central issues involved in the role play were perceptions of unfairness between two sets of contractors and a female staff sergeant being assigned to a leadership position in the Ammunitions Storage Point. A background scenario was written, and specific background information sheets for each role were created to give participants an idea of their roles, interests, goals, and current perceptions.

While in class, the participants first rotated through one-on-one discussions with other participants. Following this, all parties were required to meet as a group to discuss the impending assignment of the female staff sergeant. The team also implemented a “coach’s corner” as part of this exercise, an application of scaffolding. At any point during the role play, a participant could take a time out to talk with the instructor about the negotiation and about using influencing tactics. Appendix C provides additional details about the Iraqi role play.

This activity was an application of tenets of cognitive flexibility theory in that it provided the students with a situation that is more complex and ill-structured than the previous role play. This allowed the participants to explore as individuals, and as a group, a fairly complicated and very job-related influence situation. After this activity, the instructor facilitated a debriefing session that was similar in nature to those following the Harborco and Radwaste role plays.

Homework Assignments

The team developed two homework assignments. The assignments were developed specifically to add important elements of different leadership theories. The first of the two assignments was handed out on the first day and to be completed before the next class. It was assigned in conjunction with a reading from FM 6-22 on influencing tactics. The second assignment was handed out on the second day of class and to be completed before the third class.

The first assignment was designed to utilize experiential learning as well as collaborative learning. Students were told to go outside of class and engage someone in a negotiation. The only stipulation made was that what they were negotiating for had to be negotiable. Following the negotiation they were to go home and compose an e-mail to a randomly assigned partner detailing the negotiation, including which influence tactics were used. Then they were to provide feedback on their partner's negotiation as well as read feedback from their partner.

This assignment was designed with the expectation that there would be both successes and failures experienced. Learning from failure evokes specific aspects of experiential learning. The instructor was copied on the email exchanges so that he could select illustrative examples to share with the class. The purpose of this activity was to provide real-life practice using influence techniques, and to do so with the help of a peer "tutor" (collaborative learning, cognitive tutoring). In addition, each student was asked to explain his/her strategies during the assignment, and the class was encouraged to provide input, consistent with self-explanation and collaborative learning, respectively.

The second assignment was for each student to identify and describe their own principles and tactics for multi-party negotiations. These could be comprised of strategies for applying the influencing tactics in FM 6-22 in multiparty situations, other general techniques that were not covered in FM 6-22, or techniques that would be specific to multiparty situations (or a mix of all of these). Students were to base these on experiences in multiparty situations, both in and out of class, and on consideration of not only the short-term impact of a technique or strategy, but also the long term implications of the technique on commitment of others and relationships with other individuals or groups. Each principle was to include:

- A definition of the principle and why it is an effective way to influence others
- An example of the principle
- Guidance on when it is most appropriate to use this technique or strategy.

This exercise allowed the students to construct knowledge regarding the usage of the influencing tactics, including when they are most appropriate to use and strategies for using them in different contexts (constructivism). It encouraged the students to think about these tactics being applied in a range of situations, consistent with cognitive flexibility theory. As with the first assignment and consistent with collaborative learning, students were encouraged to provide input to each other.

All of the role plays and assignments were followed by debriefing sessions. During these sessions, participants re-capped what happened, which influence tactics they used, if they were effective, and what they might have done differently. Students also provided peer-to-peer feedback on others' use of influence tactics during these sessions.

Table 2 summarizes the linkages between the module activities and the advanced learning theories included in this study. While no one activity was a full application of a theory, each incorporated elements of several theories. Furthermore, the structure of the module as a whole was consistent advanced learning themes, such as relating a concept to multiple experiences, moving from less complex to more complex concepts and activities, and maintaining learner attention through active learning. Appendix C contains copies of the homework assignments.

	Cognitive learning strategies/Scaffolding	Collaborative learning	Constructivism	Experiential activities	Self-explanation	Cognitive flexibility
Harborco and Radwaste Role Plays		X	X	X	X	
Iraqi Role Play	X	X	X	X	X	X
Assignment #1	X	X		X	X	
Assignment #2		X	X			X

Table 2. Linkage of module activities and advanced learning theories.

REHEARSAL

After the materials had been developed and gathered, two internal rehearsals were conducted. The first was a test of the Harborco and Radwaste role plays. The purpose of the second was to test the homework assignments and in-class activities.

The first rehearsal was conducted 15-16 May 2006. Seven Caliber/ICF staff members not involved in the development of these activities were assigned Harborco roles and were given one day to review the Harborco information. The next day, they were brought together as a group and the Harborco role play was conducted as described in the Harborco instructions, with the exception that a vote was taken at 10 minutes, 35 minutes, and 60 minutes so that the entire role play would be completed within an hour. Next, participants were assigned a role in the Radwaste exercise and given 20 minutes to review their information. Radwaste was then conducted with votes occurring at 10 minutes, 35 minutes, and 60 minutes. Participants provided feedback on how the role plays were conducted and any points of confusion.

The module instructor rehearsed the in-class activities with four different Caliber/ICF employees. This rehearsal started on 15 May 2006 and ended on 24 May 2006. The week of the 15th was used to test the first homework assignment. This homework assignment required participants to go out and engage in a negotiation. Following the negotiation participants emailed a partner and the instructor briefing them both on how the negotiation went providing insights to what tactics they used. The partners in turn responded with any criticisms or suggestions they had.

On 24 May 2006, Day 2 of the CGSC pilot was rehearsed. Participants were given the influencing instruction slides, the reading from FM 6-22, and the case study in advance. The rehearsal started with a discussion concerning the home-work assignment. Reinforcing the influencing tactics, the instructor asked the participants to explain what tactics they used and facilitated a discussion encouraging suggestions and criticisms from fellow participants.

Following the discussion the instructor led the participants through the influencing slides while asking for input from the participants. Following this section, the instructor passed out the roles that were associated with the Iraqi role play which everyone had read previous to the rehearsal. The role play was then conducted, and finally the group came together to discuss the Day 2 section in its entirety and offer any suggestions for improvements that could be made. During this rehearsal, the team determined that to allow adequate time for each of the exercises, use of the slides must be minimized. The team also made revisions to the Iraqi role play. Appendix C provides copies of the course materials.

IMPLEMENTATION

Implementation of the pilot began at CGSC at Ft. Leavenworth Army base on 30 May 2006. There were a total of three different classes that were used for the pilot testing. The participants were students who were enrolled in a negotiations course at CGSC. The first two classes participated in the pilot training on 30 May, 1 June, and 5 June from 8:00 to 10:00 a.m. and from 10:00 a.m. to 12:00 p.m. The third class went through the pilot training on 31 May, 2 June, and 6 June from 8:00 to 10:00 a.m.

There were a total of 28 participants who were involved at some point in the training. There were 7 participants in the first class, 10 participants in the second class, and 11 participants in the third class. Not all of the participants were present for all three classes, and therefore their data were not included in the analysis. There were a total of 21 participants who attended class for all three days.

RESULTS

This chapter provides the results of our evaluation of the six hour training module and includes both quantitative and qualitative outcomes. The goal of the project was to implement an innovative training approach that incorporates advanced learning technologies/ theories to encourage faster, deeper learning with respect to “Influencing Others.” This implementation of the training module was meant to serve as a pilot test of the course content as well as the evaluation measures. We collected quantitative data in four measures. We collected ratings of role-play outcomes at the end of both role play exercises. We asked participants to rate themselves as well as the other participants. In addition, independent observers also provided ratings. At the end of the training we administered an evaluation questionnaire that asked participants to provide basic demographic information, ratings of the course and ratings of how much they learned. The rating forms can be found in Appendix D. We present our results in four sections:

- Background of Participants
- Change in Participant Skills and Learning
- Learning Theories, Training Innovation, and Learner Satisfaction
- Conclusions.

BACKGROUND OF PARTICIPANTS

The participant’s rank, branch or service, and whether or not they were a US military officer (CGSC has international officers) were obtained from an End of Training Evaluation Form. The ranks of the participants ranged from O3 to O6, with the majority being O4s. Of those 21 students who filled out the form, 17 were officers in the US military. There were 16 students from the US Army, and one student from the US Navy. Four students in the course were international military officers representing various countries. Excluding the international military officers, the ranks of the US servicemen were 16 Majors and 1 Lieutenant Colonel. Table 3 shows the number and percentage of participants in each rank.

Rank	Frequency	Percentage
Captain	1	4.8%
Major	17	81.0%
Lieutenant	2	9.5%
Colonel		
Colonel	1	4.8%
Total Valid	21	

Table 3. Rank of participants

As shown in Table 4, the majority of the participants were in the U.S. Army, although there was one participant from another U.S. service and four participants from foreign services.

Service	Frequency	Percentage
U.S. Army	16	76.2%
U.S. (other)	1	4.8%
Foreign	4	19.0%
Total Valid	21	

Table 4. Service of participants.

The majority of participants (61.9%) reported having no previous training on influencing others. Table 5 shows the participant responses to this item.

Prior Influence Training?	Frequency	Percentage
Yes	8	38.1%
No	13	61.9%
Total Valid	21	

Table 5. Prior Training on influencing others.

CHANGES IN PARTICIPANT SKILLS AND LEARNING

The main goal of the training was to improve the performance of each participant's skill at influencing others. To determine whether or not the training accomplished this goal, we looked at ratings of negotiation outcomes from other participants, self-ratings and observers. These ratings were on a five-point scale from 1 "Strongly Agree" to 5 "Strongly Disagree," so lower ratings represent greater agreement than higher ratings. Table 6 shows a summary of these ratings for the Harborco (RP1) and Radwaste (RP2) role plays. We conducted a t-test for each outcome to identify where there were significant differences between the first and second role plays on each outcome. However, it is important to note that the two role plays were not equivalent in difficulty (Radwaste was a more complex role play), therefore while interpreting an increase in agreement ratings for outcomes is fairly straightforward, interpreting a decrease in the

agreement ratings is difficult because it is not clear if skills have actually decreased or if the increased complexity of the role plays explain the lower ratings. While this is unfortunate from a measurement perspective, the increase in the complexity of the role play was intentionally incorporated into the course to be consistent with our learning theories. In addition, the observer ratings were obtained from Caliber ICFI staff including the instructor for the course. While this presents a potential rating bias, it is important to note that all of the raters were highly trained in understanding the pitfalls of rater bias.

Of these ten outcome ratings we would generally expect a decrease in the agreement ratings (indicating stronger agreement) as participants gained greater skills for all of the items except for outcome 4, “I/this person used influence techniques that I would/they should not use in the future.” For this item, we would expect a decrease in the agreement rating if skills had improved. It is important to note that a decrease in agreement for items 1-3 and 5-10 does not necessarily indicate a decrease in skill, as this could simply indicate that our measure is not sensitive enough to measure differences when the second role play is more complex.

For the ratings provided by others, there was a decrease in agreement (though not always significant) for all but two of the items. For the self ratings there was a decrease in agreement for all but three of the items, with only a significant decrease for item 10. The observer ratings show a significant change in agreement in the expected direction for six of the 10 items. The results for the ratings by others and the self-ratings are inconclusive because while they were not in the expected direction of change, there is no way to gauge decrease in agreement against the increase in role play complexity. It is also worth noting that two of the classes did not come to an agreement in the final and more complex role play. This fact could also have influenced their perceptions of skill level in the “ratings by others.” The observer ratings indicate an increase in agreement and therefore an increase in the influencing skills of the participants. In the classes that did not come to an agreement, participants reported that they actually learned a lot from the experience of failure, despite being disappointed. Furthermore negotiators were not naïve. Each was aware of the techniques being used. This may have improved their ability to negotiate because of the emphasis on collaborative techniques.

Outcome	Ratings by Others N=18			Self-Ratings N=18			Observer Ratings N=19		
	RP1	RP2	T-Test	RP1	RP2	T-Test	RP1	RP2	T-Test
1. I/this person was able to influence the other groups the way I/they wanted.	1.87	2.18	-3.11**	2.44	2.83	-1.33	2.63	2.26	1.27
2. I/this person was able to get other groups to change their opinion because of my/their influencing techniques.	1.99	2.39	-2.43*	2.61	2.94	-1.14	2.76	2.29	1.54
3. I/this person adjusted my/their influence techniques when things were not going my way.	2.07	2.32	-1.74	2.17	2.44	-1.00	3.24	2.29	3.62**
4. I/this person used influence techniques that I/they would not use in the future.	3.17	3.64	-3.18**	3.44	3.28	0.48	2.97	3.81	-3.44**
5. I/this person was effective in communicating my/their position to the other groups.	1.78	1.99	-1.63	2.06	2.33	-1.05	2.53	2.05	1.38
6. Other groups understood my/his/her perspective within the negotiation.	1.87	2.06	-1.80	2.06	2.22	-0.72	2.61	1.84	2.33*
7. My/this person's negotiating was mostly constructive.	1.98	2.09	-0.77	2.28	2.22	0.24	2.68	1.79	3.47**
8. I/this person treated other groups fairly.	1.88	1.76	0.94	1.78	1.89	-0.46	2.63	1.82	4.63**
9. Others would look forward to negotiating with me/this person again.	1.93	1.86	0.54	2.61	2.22	1.59	2.76	1.79	4.54**
10. The agreement reached was satisfactory to me/this person.	1.75	3.22	-4.74**	1.89	3.44	-3.76**	2.18	2.37	-0.52
Mean	2.03	2.35	-1.79	2.33	2.58	-0.72	2.70	2.23	1.88

**p<.01; *p<.05

Table 6. Ratings by others, self and observers of negotiation outcomes for both role play exercises.

For some of the role play exercises there were more students than role play roles. Therefore participants had to form a group or dyad that would play one role together. For these instances we asked participants to rate themselves and others on five questions related to communication/social awareness. We also asked observers to make these ratings. The total number of ratings that we collected for these items was very low (ranging from 1-3). As such, we do not deem it appropriate to draw conclusions from this data, but have provided it in Table 7.

	Ratings by Others N=3		Self-Ratings N=2		Observer Ratings N=1	
	RP1	RP2	RP1	RP2	RP1	RP2
11. I used similar influence techniques to the other people in my group.	1.92	1.91	1.50	2.00	3.00	3.00
12. I was respectful of other people in my group.	1.78	1.69	1.50	2.00	2.00	2.00
13. I accurately represented the opinions of my group.	1.78	1.83	1.50	2.00	3.00	2.00
14. I supported the opinions of the other people in my group.	1.72	1.92	1.50	2.00	2.00	2.00
15. The other people in my group would look forward to negotiating in the same group as me again.	1.55	2.00	2.00	2.00	3.00	2.00
Mean (11-15)	1.75	1.87	1.60	2.00	2.60	2.20

**p<.01; *p<.05

Table 7. Communication and social awareness ratings by others, self and observers.

Another aspect of influencing skills that we measured was whether the types of tactics that participants were using changed from role play 1 to role play 2. We asked observers to rate the frequency with which participants used each of 10 tactics on a four point frequency scale with 1 being “Never” 2 being “Seldom”, 3 being “Moderately” and 4 being “Very Often.” See Appendix D for full rating scales and instructions. Table 8 shows the average frequency ratings for 10 influencing tactics. The frequency of the use of two types of tactics decreased significantly: Pressure and Legitimate Requests. The decrease in the use of these tactics is positive as the use of pressure (threats) or legitimate requests (using one’s authority to influence others) are not the most desirable and effective means of influencing others in terms of eliciting commitment of others. There was a significant increase in the use of two tactics: Collaboration and Participation. These tactics are generally considered favorably as influence tactics.

Technique	Observer Ratings N=19		
	RP1	RP2	T-Test
1. Pressure - Threatened other groups who did not support his/her group	2.32	1.63	2.53*
2. Legitimate Requests – Claimed they had the authority to influence other groups.	1.63	1.05	3.36**
3. Exchange – Stated they were willing to back off on certain demands if the other group was also willing to back off some of their demands.	2.45	2.71	-0.96
4. Personal Appeals – Appealed to the loyalty or friendship of another group.	1.37	1.24	2.04
5. Collaboration – Offered to supply assistance or resources to help another group reach their goal.	1.58	2.26	-3.50**
6. Rational Persuasion – Explained why a course of action would benefit the other group's bottom line; used logical arguments and factual evidence.	2.74	2.37	1.16
7. Apprising – Explained his/her group's rationale behind all proposed decisions; explained the benefits of a solution to another group.	2.37	2.00	1.74
8. Inspiration – Appealed to the values of the other groups.	1.63	1.89	-1.11
9. Participation – Asked for input from others on how to move forward; Asked for input on how to best meet everyone's goals.	1.76	2.63	-3.64**
10. Relationship Building – Build a relationship of mutual trust with other groups; provided genuine praise to others when they raised good points during the discussion.	1.58	1.87	-1.29
Mean (1-10)	1.94	1.97	0.03

Table 8. Observer ratings of frequency of influencing tactics.

Participants discussed the pros and cons of using Pressure, Legitimate Requests, Collaboration, Participation, and Relationship Building at length during the debriefing sessions. There was consensus that Pressure and Legitimate Requests could be effective in gaining short-term compliance, but that when other participants used these, particularly Pressure, they felt that it damaged the relationship. During the Harborco role play, several participants stated that they were offended and annoyed at other participants' use of these tactics. During the Radwaste debriefing session, one participant commented that Pressure was particularly ineffective with a more mature or more sophisticated audience.

A number of participants commented that they specifically tried to use as much collaboration and participation as possible during the role plays because they found those tactics to be effective and because they worked under the assumption that they may have to negotiate with the other parties again at some point. Another participant explained how, in day-to-day situations, higher level relationship building can be used to trickle down and develop loyalty among lower level staff. The participant referred to this as servant leadership and defined it as a situation in which one party will step in and explain that they are there to help. The participant

mentioned that this may hurt the leader in the short term because they are not gaining anything. However, in the long run they are gaining “points” which may be used later.

In the end of course evaluation we asked participants how much their influencing skills improved. As shown in Table 9, more than two-thirds of the participants reported at least a moderate improvement in their influencing skills.

Response	Frequency	Percentage
A lot of improvement	6	28.6%
A moderate improvement	9	42.9%
A little improvement	6	28.6%
No improvement	0	0.0%
Total Valid	21	

Table 9. Self- ratings of improvement in influencing skills.

We did not collect simple measures of learning such as testing participant knowledge at the beginning and end of the course because the focus of our training was on skill building. However, we still asked participants to rate their level of learning in the end of training evaluation. We asked participants to rate the amount that they learned compared to what they knew prior to training. As shown in Table 10, more than two-thirds of the participants reported learning at least a moderate amount more compared to what they knew previously. No participants reported “no improvement.”

Response	Frequency	Percentage
A lot more	9	42.9%
A moderate amount more	6	28.6%
A little more	6	28.6%
No improvement	0	0.0%
Total Valid	21	

Table 10. Ratings of amount learned.

Participants also answered four questions related to their skill improvement as a result of the course. These ratings were on a five-point scale with 1 being “strongly disagree” and 5 being “strongly agree.” Table 11 shows the mean ratings for these questions. The ratings were generally high and indicate that participants thought that their influencing skill improved and that the techniques that they learned would be useful back on the job. In addition, participants reported during their debriefing sessions that these exercises were very relevant to situations on the job in which they regularly must influence others, such as negotiating for equipment, training space, and time from individuals not in their chain of command.

Question*	Mean Rating
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My negotiation skills improved between the Harborco and Radwaste role plays.	3.90
My skills have improved as a result of this training.	4.25
My ability to influence others has improved as a result of this training.	4.05
I will be able to use the influence techniques that I have learned in this training back on the job.	4.37
Average	4.14

*On a five point scale

Table 11. Ratings of agreement on skill improvement questions.

We asked participants to rate the extent to which various aspects of the course helped them increase their ability to influence others. They made these ratings on a four point scale from 1 “To no extent,” 2 “To a small extent,” 3 “To a moderate extent,” and 4 “To a great extent.” As shown in Table 12 participants rated all of the activities highly, with the lowest ratings being assigned to the homework assignment. It is interesting here to note that the Harborco role play received higher ratings than the Radwaste role play in terms of increasing one’s ability to influence others. These ratings are shown in Table 12.

To what extent did each of the following help to increase your ability to influence others?*	Mean Rating
Course content (e.g., influencing tactics)	3.05
Harborco role play	3.30
Class activity	3.11
Radwaste role play	3.20
Homework assignments	2.60
Overall training	3.35
Average	3.10

*On a four point scale

Table 12. Mean ratings of the extent to which various aspect of the course increased a participant’s ability to influence others.

TRAINING INNOVATION AND LEARNER SATISFACTION

We asked a series of questions related to training innovation and learner satisfaction. We asked participants to rate their level of agreement with a statement about the training being innovative. As can be seen in Table 13, more than two thirds of the participants either agreed or strongly agreed that the training was innovative. In addition, we asked participants to rate their level of agreement with the statement, “this training was unique in comparison to other training that I have participated in.” On a five-point agreement scale the average participant rating of this statement was 4.20, falling just in between agree and strongly agree.

Response	Frequency	Percentage
Strongly disagree	0	0.0%
Disagree	1	4.8%
Neither agree nor disagree	3	14.3%
Agree	7	33.3%
Strongly Agree	9	42.9%
Total Valid	20	

Table 13. Agreement with statement that the training was innovative.

We also asked a series of questions related to learner satisfaction. Table 14 shows the mean satisfaction ratings on a five point scale with 1 being “very dissatisfied” and 5 being “very satisfied” for various aspects of the course. While all of the ratings were quite high, the Harborco role-play received the highest ratings, while the homework assignments received the lowest ratings.

Please rate your satisfaction with each of the following aspects of the training.*	Mean Rating
Course content (e.g., influencing tactics)	4.33
Harborco role play	4.52
Class activity	4.33
Radwaste role play	4.48
Homework assignments	3.48
Overall training	4.52
Average	4.28

*On a five point scale.

Table 14. Course satisfaction ratings.

Finally, we asked two questions related to motivation and satisfaction. Table 15 shows the agreement ratings on a five-point scale with a direct question about motivation and a question

about whether or not participants would recommend this course to others. Both of these items received high ratings.

Question*	Mean Rating
I was motivated to learn the material in the training.	4.30
I would recommend this course to other Soldiers.	4.50

*On a five point scale

Table 15. Agreement ratings.

CONCLUSIONS

Overall the pilot test of this training was successful. Observer ratings indicate improvement in participant influencing skills between the first and second role plays. Participants also reported an improvement in their influencing skills. Furthermore, participants reported that as a result of this course their knowledge of influencing others increased and that they will be able to use the techniques that they learned on the job. Finally, participants generally liked the course, thought that it was innovative, and were motivated during the course.

RECOMMENDATIONS

The evaluation of the training application was generally positive, participants seemed to increase their influencing skills and they seemed to be generally satisfied with the course. There are, however, several recommendations that we have for improving the training application in the future and for building on the current line of research.

EXPAND TO FULL COURSE AND EVALUATE EFFECTIVENESS

The sample used in this study was ideal in that the leaders were of a very appropriate rank to develop and apply skill in influencing others in a way that elicits commitment of others. The participants had a basic and uniform understanding of the mechanics of negotiation; however, instruction was limited in that the module had to fit within a six hour timeframe. The module evaluations showed that the students found the module valuable, but there was no clear evidence of substantial increase in influencing skill.

The brief nature of the current effort likely limited the amount of learning or improvement that could have taken place. Learning theories are usually not applied in 6 hours or less. Experiential learning, for example, requires engaging in a variety of developmental experiences. Eliciting and engaging in truly developmental experiences takes considerable time because these types of experiences are often on-the-job challenges that simply do not occur every day. Developmental activities also include simulations, but to be truly developmental, these simulations should occur over time and include opportunities to reflect on the exercise. Similarly, constructivism requires building understanding and making sense of new experiences. Again, this requires a breadth of experiences with opportunity to process and interpret the situations which can require a significant amount of time. Expanding this module to a full course would allow for time to introduce, engage in, and reflect on a broader range of experiences, including naturally occurring experiences in participants' everyday lives. This would likely lead to a greater increase in skill in influencing others.

In addition, we chose to focus this module on influencing others in a multiparty context, primarily because of the interactive nature of multiparty negotiations. Expanding to a full course would allow for exploration of influencing others in, for example, cross-cultural situations, in a team context, and/or in an on-line environment.

IMPROVE MEASURES OF PERFORMANCE IMPROVEMENT BY USING VIDEO TAPED ROLE-PLAYS TO ALLOW MORE ACCURATE AND COMPLETE OBSERVER RATINGS

Skill in influencing others was measured both in terms of influencing behaviors and outcomes of those behaviors. Outcomes were measured in terms of perceptions of self, classmates, and observers. Behaviors were measured using observer ratings of frequency of

influencing tactics and effectiveness of individual influencing tactics. The major challenge to implementing these measures was that observers had difficulty tracking the individual behaviors of the participants in real time. In addition, participants “blended” tactics fairly frequently, making it difficult to make a quick decision regarding tactics that had just been used. Using videotapes to record the role plays would significantly increase the reliability of the measures used to assess frequency and effectiveness of individual tactics because observers would be able to rewind and pause segments to better count tactics used. It would also enable observers to discuss behaviors that incorporated multiple tactics and come to a consensus on how to count that behavior. Furthermore, video would allow observers to assess patterns of usage of influencing tactics. For example, observers could track how often and when participants tended to change tactics, allowing for much richer data on how influence tactics are used. Videotapes were not possible for the current effort but, in the future, would allow us to capture a richer level of detail and more accurate information about changes in influencing tactics and behaviors.

IMPLEMENT INTO A TECHNOLOGY-BASED, DISTANCE APPLICATION

The pilot training application that we conducted could be moved into a technology-based application. This would allow us to test the feasibility of a training application that is entirely technology driven that employs advanced learning theories. Moving the training to a distance learning application would allow the Army to reach a broader audience and potentially train influencing skills across the entire force in an anywhere, anytime capacity.

It would be informative to explore the relationships between technologies and advanced learning theories. Certain theories seem to lend themselves to certain technologies. Table 16 shows example linkages between learning theories and technologies.

Learning Theory	Video Streaming/ Satellite	CBT	WBT	CoP	Treated Discussion	Tele - conferencing	PDA
Learner-centered education	X	X	X	X	X	X	X
Constructivist learning theory	X	X	X	X	X	X	X
Cognitive Flexibility Theory	X	X	X	X		X	
Self-explanation strategy	X	X	X			X	X
Learning to learn training	X	X	X			X	X
Collaborative learning and virtual learning			X	X	X	X	X
Experiential activities		X	X				
Cognitive tutoring		X	X		X		X

CBT=Computer-Based Training; WBT=Web-Based Training; CoP=Community of Practice;
PDA=Personal Digital Assistant

Table 16. Overlap between learning theories and technologies

It would be useful to conduct a study of technology-based applications of learning theories to determine if certain technologies are more conducive to certain theories.

COMPARISON OF LEARNING THEORIES

As the future Army will likely focus on increasing levels of decentralized leadership and decision making, cognitive and interpersonal skill training will become increasingly more important. Advanced learning theories lend themselves to teaching these types of skills. While the current study employed the use of advanced learning theories, it did not compare one learning theory to another. The literature of advanced learning theories is basically void of any evidence of the impact on performance when using one learning theory versus another. This is an area of study that could provide valuable information for training Army leadership. For example we could train similar content or constructs using two different techniques which represent two different learning theories, then assess differences in learning.

In addition, it is not known the extent to which current Army training incorporates the use of advanced learning theories. A systematic study of the extent to which advanced learning theories are currently incorporated into Army training along with additional research on the merit of each learning theory could lead to developing Army training using proven advanced learning theories resulting in shorter and more efficient training, a greater level of learning and understanding, and/or greater transfer of skills to the job.

CONTROL GROUP

Finally, we recommend the use of a control group in any follow-up studies. Because there is ultimately some solution to any given role play toward which participants work during the course of the role play by, for example, unveiling previously unknown interests, the same role

play cannot be used for both a pre- and post-test. The inability to use the same exercise, however, introduces error into this measurement. The best way to control for this is to implement the use of a control group so that any differences in behavior or outcomes can be attributed to the intervention, rather than the different situation.

One example of how a control group might be implemented in this type of study would be to have three groups: One that would participate in the full module, one that would participate in the pre- and post-test exercises only (excluding the debriefing sessions), and one that would participate in only the post-test exercise. The comparison of the experimental group with the pre-/post-test only group would provide an indication of the effectiveness of the module, but an addition comparison with the post-test only group would also account for the possibility that simply engaging in the pre-test might result in some skill development.

Appendix A: Relevance Ratings

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Advanced Learning Theories Applied to Leadership Development

Appendix A: Relevance Ratings

The advanced learning theories discussed in Chapter II were evaluated according to their relevance to several components of this project. This appendix discusses how those ratings were determined.

RELEVANCE TO ARMY

Of the advanced learning theories reviewed in this paper, several are very amenable to current Army training, and therefore may be the easiest to integrate into existing leader education. Much of Army Institutional Training occurs in a formal classroom with an instructor providing lectures and facilitating discussions with students. Training may also include practical exercises and role-plays with other students to reinforce concepts presented by the instructor. Because of extended deployments and the extensive amounts of information needed by leaders, training is increasingly being offered on-line or through other distance learning formats that can be utilized on an as-needed basis.

Constructivism, Experiential Activities, and Cognitive Flexibility Theory are most relevant to application within current Army Institutional Training or Self Development. These theories posit that learning happens best when the learner actively participates in some way instead of passively receiving the information, especially for more complex and ill-defined content. While the Army will likely continue providing much information through lecture and reading facts and procedures, these theories suggest that the Army should consider increasing the proportion of time that students actively learn. Learning during training could include:

- Games
- Realistic examples and case studies
- Problem solving with peers
- Simulations and role plays
- Discussions provided as part of training, especially for distance learning training, so people from remote locations can interact with each other about a topic.

These theories also imply that learning happens outside a formal educational setting. Leaders learn from performing their jobs and assignments, and they learn from hearing of the experiences of others. They can receive feedback from the job itself, informally from supervisors, peers, or subordinates, or more formally through 360-degree feedback.

Cognitive Learning Strategies, Cognitive Tutoring, Scaffolding, Web-based Collaborative Learning, Virtual Learning Groups, and Learning to Learn Training also have relevance to the Army's current training methods, but to a lesser extent.

The Army currently uses communities of practice (CoP), such as companycommand.com, as a way for leaders to share information and learn from each other. As advocated by Virtual Learning Groups theory, these CoPs typically include threaded discussion groups, in which leaders can post questions or provide responses and suggestions to others' posts. However, the Army's current CoPs are provided for development, but are not part of formal training or education processes. Web-based Collaborative Learning and Virtual Learning Groups could be used to explore a topic area and construct knowledge, similar to other theories described above. It also advocates encouraging a learning orientation as opposed to a performance orientation. Students are encouraged to make mistakes while learning and not worry about tests or the perceptions of others while they are learning. They are also encouraged to challenge the status quo and authority. These recommendations may not be accepted in the current Army culture.

Self explanation strategy training is less relevant to the Army. It requires one-on-one work with a tutor, in which the student describes aloud their process for applying knowledge, and the tutor provides feedback. In a large class environment, this is not practical, and it is difficult to see how this can be automated using technology.

APPLICABILITY TO LEADERSHIP

While many of the advanced learning theories have focused on more concrete topic areas such as mathematics, physics, and biology or have been mostly examined in more elementary or secondary educational settings, there are several theories that appear to be applicable to the construct of leadership. Specifically, experiential activities, constructivism, and cognitive flexibility are all learning theories where a link to leadership training has been suggested. Additionally, there are aspects of collaborative learning as well as learning to learn training which may be applied to training on leadership. An examination of the applicability of these theories to leadership is described below.

Experiential learning deals with learning through active participation in the content area of choice. This active, integrated approach towards learning is a major trend in managerial training and leadership development (Fulmer, 1997; McCauley, Moxley, & Van Velsor, 1998; Tesluk & Jacobs, 1998). Furthermore, Van Velsor and Guthrie (1998) suggested that the ability to learn from experience is critical to responding to change quickly and to effectively handle situations that are not necessarily black-and-white, which is a crucial component of leadership. This ability to learn through experience is also effective because leaders cannot always depend on others to instruct them how to proceed. Much of their learning is done through trial-and-error (either their own or from others). Lastly, Kearsley (1994) suggests that theories of adult learning that emphasize the importance of building upon learner's experience are extremely relevant to management education (i.e., leadership). This level of experience allows leaders to understand

what does and does not work in different situations and allows for decisions to be made more efficiently and effectively. The one concern, though, with experiential learning is that it does require situations where an individual can feel safe to make mistakes while learning (Van Velsor, 1998). While these types of situations may be acceptable during the earlier stages of leadership training, at some point the leader's actions need to become more automatic and mistakes will be more costly and less acceptable.

Constructivism and Cognitive Flexibility Theory (CFT) are similar to experiential learning in their approach to learning in that they both encourage the learner to construct their knowledge based upon their existing knowledge and experience (Dimock & Boethel, 1999; Spiro, Feltovitch, Jacobson, & Coulson, 1992). Additionally, both Constructivism and CFT deal with transferring knowledge and skills from initial learning situations to more complex and ill-structured domains (Spiro et al., 1992). Leaders need this type of knowledge transfer, as they are often responsible for solving complex problems in times of stress and emotion. As was the case for experiential learning, both Constructivism and CFT attempt to generate a level of expertise for the learner (which may often require a significant amount of time; Abernathy & Hamm, 1995; Spiro, Feltovitch, & Coulson, 2004). Since this can be time consuming (e.g., enabling a leader to solve complex problems using a more automatic rather than controlled process), methods that can expedite this transfer of learning from initial learning to more complex ill-structured domains are needed.

One such method/theory is the use of virtual learning groups (Dimock & Boethel, 1999; Gibbs, 1999). In this type of environment, learners can share information and ideas on a topic, which increases their own as well as others' understanding. From the leader perspective, this will allow the learner to learn from other's perspectives and to receive immediate feedback on their own suggestions in certain problem solving areas. In other words, learners may be able to use these virtual learning groups to expedite the experiential learning process as well as their ability to transfer their basic knowledge to more complex situations (which are more common for leaders). Additionally, the use of virtual learning groups may be helpful for learners to practice their leadership skills in the absence of an instructor. Specifically, they may be able to take the information they acquire from the more structured learning environment and apply it to practice problems within a virtual learning environment where they are able to learn from their own as well as other's mistakes.

Another method/theory that may be used to support leadership training is learning to learn. Unlike the virtual learning groups, though, learning to learn relies as much on personal development as it does skill development (Zimmerman, 1989). That is, learning to learn training focuses more on understanding when and why to use different learning strategies rather than being a strategy learner can use to learn a particular topic (Paris, Lipson, & Wixson, 1983). Therefore, leaders may be able to incorporate learning to learn strategies in the dynamic

situations they often face. Additionally, learning to learn training could be used in conjunction with experiential learning, constructivism, or CFT where trainees are able to practice different strategies in a realistic, but “safe” context (e.g., games, simulations, virtual learning environments). The ability to try new things in this safe setting can work to increase a learner’s self-efficacy, which in turn can increase their ability to transfer what they have learned to new situations (Fulmer, 1997; Lundy, 1991; McCauley et al., 1998).

While much of the literature on the advanced learning theories has not directly examined the impact of the theory on leadership, there appear to be certain theories (e.g., experiential learning, constructivism, CFT) that may be applicable to leadership training. Additionally, there are pieces of other theories (e.g., virtual learning groups and learning to learn) that support the type of training that leaders need (enabling learners to transfer their basic knowledge to the types of more complex and ill-structured situations often faced by leaders).

EVIDENCE OF PERFORMANCE IMPROVEMENT.

Generally speaking, there is mixed evidence of performance improvement for the theories presented in this paper. Research on cognitive learning strategies, cognitive tutoring, and scaffolding typically involves computerized tutoring programs that adapt to the trainees. Prior research suggests that this type of approach can yield computerized tutors that perform better than average human tutors, but not as well as the best human tutors. There is also some evidence that trainees tutored in this manner do not necessarily perform better overall, but learn more quickly (Merrill, Reiser, & Merrill, 1995).

There is some evidence that virtual learning groups result in enhanced deep learning, or deep processing, but the research on the link between virtual learning groups and performance is mixed (Gibbs, 1999). Similarly, research on collaborative learning suggests that this approach may increase problem-solving and critical thinking skills (Neo, 2003), but the impact on overall performance is not well established.

Research on constructivism has primarily addressed elementary and secondary education—very little has addressed adult learners. This research has also typically been qualitative in nature and has not addressed achievement; in fact, no experimental studies were identified during this effort that showed an improvement in learning.

Performance improvement as a result of experiential activities has been examined in a number of ways. The research on the effectiveness of simulated experience (i.e., case studies and games) in increasing performance is mixed (e.g., Bredemeier & Greenblat, 1981; Williamson, 1980). The factors that seem to be important to the success of a game in an Army context are challenge, realism, opportunities for exploration, control, corresponding effective instructional

techniques, and guidance while using the game (Belanich, Mullin, & Dressel, 2004; Belanich, Sibley, & Orvis, 2004).

Research on work-related experiences has focused on which aspects of the job make work experiences more developmental (e.g., Tesluk & Jacobs, 1998; Tracy, Tannenbaum, & Kavanagh, 1995). Factors that are thought to positively influence development include factors such as job complexity, level of challenge, developmental opportunities, and supportive co-workers and supervisors.

Research on learning to learn training has primarily focused on students in a classroom setting, and the results have been mixed (e.g., Hattie, Biggs, & Purdie, 1996; Hofer & Yu, 2003, Savell, Twohig, & Rachford, 1986; Simpson, Hynd, Nist, & Burrell., 1997). There are also preliminary findings suggesting that some form of learning to learn (specifically, Instrumental Enrichment) may be effective in improving the cognitive and communicative skills for ROTC cadets (Twohig, Rachford, Savell, & Rigby, 1987). This type of training is thought to be most successful when it combines teaching the range of cognitive components of learning with a range of motivational components (Hofer & Yu, 2003). One important finding is that the motivational components of learning to learn, specifically a mastery orientation and self-efficacy, are well-established antecedents to transfer of training and performance on the job (Colquitt, LePine, & Noe., 1998; Ford, Smith, Weissbein, Gully, & Salas 1998; Kozlowski, Gully, Brown, Salas, Smith, & Nason, 2001).

Self-explanation strategy training appears to have a link with improvements in performance (e.g., Atkinson, et al., 2003; Trafton & Trickett, 2001). Specifically, self-explanation appears to allow students to learn better, make more accurate self-assessments of their level of understanding, and use analogies efficiently when solving transfer problems (Van Lehn, et al., 1992). Conati and Van Lehn (2000), however, found self-explanation strategy training might not be equally effective across all groups of individuals.

There has only been a handful of research on the performance implications of cognitive flexibility theory. These studies have suggested that cognitive flexibility training can promote knowledge transfer and can be an effective learning tool in an introductory learning environment (Demetriadis & Pombortis, 1999; Jacobson & Spiro, 1995). Most of the work in this area, however, has been conceptual rather than empirical in nature.

ADAPTABILITY TO INFORMATION TECHNOLOGY

Technology can be implemented into learning or training environments in many ways and for many purposes. The applications of information technology discussed in the literature

review include hypermedia and hypertext, computer-based or online simulation and games, web-based online collaboration, and computer-based tutoring or artificial intelligent systems.

Hypermedia and hypertext, discussed a lot in early Internet applications, can be used to present information to a learner through the Internet or computer-based instruction. Information is provided as the learner wants to see it, and only the information that is desired need be read. Because it is non-linear, this type of information requires much integration of large amounts of information (Dimock & Boethel, 1999). The research on cognitive flexibility theory (CFT) has primarily focused on the use of instructional hypertext systems to determine if difficult subject matter can be successfully learned (Spiro et al., 1992). For example, Jacobson and Spiro (1995) conducted an empirical investigation of the use of hypertext instructional systems using CFT as the underlying theory. Their results suggest that the use of hypertext systems promotes superior knowledge transfer because of the ability to demonstrate critical interrelationships between abstract and case-specific knowledge components in multiple contexts. CFT, therefore, was intended to utilize computer learning environments (e.g., hypertext, web-based design) that organize material in a nonlinear and multi-perspective fashion (Ludwig, 2000; Spiro, Collins, Thota, & Feltovich, 2003).

Computer-based simulation and games can be applied in many cognitive learning environments. The learners can try different scenarios to determine outcomes, and build their knowledge through simulated experience (Dimock & Boethel, 1999). Fulmer (1997) notes that individuals are able to log onto interactive learning experience via networked computers, and certain types of computer simulations and games may be appropriate for online administration. Games are a relatively popular experiential teaching method (Lundy, 1991), though the findings on the effectiveness of games is mixed (Bredemeier & Greenblat, 1981; Williamson, 1980). Several factors seem to influence the effectiveness of games on learning (Lundy, 1991). A thorough introduction, including the purpose of the game, as well as guidance during the game and an adequate debriefing can enhance the game's effectiveness as a learning tool.

Online collaboration involves the joint online interaction with other learners or instructors. Web-based collaborative learning has a large potential for knowledge acquisition. Hron and Friedrich's research (2003) confirmed differences between online collaborative learning and conventional learning, especially with respect to the social communication situation (synchronous and asynchronous communications, eye contact, non-verbal and tone hints), message exchange (text chat and real-time chat), cognitive load (necessary computer literacy) and participation of the learners (discussion, reading and asking questions). Joiner's research (2004) supports Hron and Friedrich's conclusion by conducting a short literature review on supporting collaboration in virtual learning environments. Neo (2003) focuses on the creation of a collaborative learning environment in an undergraduate class in the Faculty of Creative Multimedia via a design project to promote collaborative and cooperative skills, as well as

enhance students' problem-solving and critical thinking skills. All researchers (Hron, Friedrich, Joiner, Kirshchner, and Neo) suggest that creating a successful learning environment in which collaboration, cooperation, critical and analytical thinking, and problem-solving skills could be inculcated into learners, involves placing them in situated learning environments where they can work together to solve realistic problems while being active and responsible learners.

The current computer-based artificial intelligence or tutoring systems were inspired by the intelligent tutoring work of the late 1970s and early 1980s (Sleeman & Brown, 1982). Anderson et al.'s (1995) research group at Carnegie Mellon University developed the Advanced Computer Tutoring system based on cognitive models of how students solved problems in geometry and algebra. In two classroom experiments, Aleven and Koedinger (2002) found that students who explained their steps during problem-solving practice with intelligent tutoring software learned with greater understanding compared to students who did not use a cognitive tutor. The influences on learning technologies from the related fields of Artificial Intelligence in Education and Human Computer Interaction (Issroff, Scanlon & Milton, 2002) have been extensively applied in aspects of learning technologies where computers have been used as vehicles for teaching and learning.

RELEVANCE TO PROJECT

To develop our training application to improve performance in leadership, we used a combination of advanced learning theories. After considering each theory in terms of relevance to the Army, applicability to leadership, evidence of performance improvement, and adaptability to IT, we determined that three theories seemed the most promising for our purposes: Constructivism/Learner Centered Education, Experiential activities, and Cognitive Flexibility Theory. We combined the cognitive, experiential and motivational components of advanced learning theories to develop a training application intended to maximize performance improvement in the area of leadership.

In considering all of the aforementioned learning theories and technologies, we also took into account the limitations of our pilot test. We had three two-hour class periods in which to implement our module, and approximately 7-10 students per class. These parameters restricted some of our options. We hoped to have the students participate in online journaling and discussion with classmates, but there was not sufficient time to include this assignment. This type of technology use, however, is another promising approach to tapping collaborative learning, virtual learning groups, self-explanation, and constructivism. We also considered conducting a role play solely over e-mail or an online chat program, to teach additional nuances of influence that manifest themselves when technology is involved. This task would be an excellent complement to other role play exercises in a full course. Not all subject matter is best learned by using the same approach; while lecture may work for some material, learning

experientially by using technology to simulate an influencing scenario may be the best tactic for learning about how influence is different in that situation.

Appendix B: Module Activities

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Appendix B: Module Activities

Module Activities	
Pre-work ➤ Participants receive assignments for role play and are instructed to read general instructions and role-specific information.	
Day 1: ➤ Conduct Harborco role play (60 minutes with votes at 10 min, 35 min, and 60 min) ➤ Make ratings on self and other groups (pre-test) (10 min.) ➤ Debrief role play (20 min)	<p><i>Harborco Description:</i></p> <p><i>Harborco is a consortium of development, industrial, and shipping concerns interested in building and operating a deep draft port. It has already selected a site for the port, but cannot proceed without a license from the Federal Licensing Agency (FLA). The FLA is willing to grant Harborco a license, but only if it secures the support of at least 4 of 5 other parties: the environmental coalition, the federation of labor unions, a consortium of other ports in the region, the Federal Department of Coastal Resources (DCR), and the Governor of the host state. The parties have several issues to negotiate before deciding whether or not to approve the port, including the types of industries that will be permitted to locate near the port, the extent to which environmental damage be mitigated, the extent to which organized labor will be given preference in hiring during construction and operation of the port, the amount of any federal financial assistance to Harborco, and the amount of any compensation to other ports in the region for potential economic losses. Parties must negotiate/influence in order to ensure that the Harborco proposal meets their interests and concerns.</i></p>

<ul style="list-style-type: none"> ➤ Distribute reading for day 2 (Influence section of FM 6-22) ➤ Distribute Assignment #1 and pair up students. 	<p><i>The first homework assignment requires that participants engage in some type of group/multi-party negotiation with another person outside of class. This can be in trying to buy something from a store, negotiating with spouse and kids, convincing their staff group to do something a particular way, etc. They then email their partner regarding what happened, which influence tactics they used (they should have read their reading assignment at this point), why they chose that tactic(s) and how effective it was. Their partner is then required to give them some feedback on this and help them generate some additional ideas on how to effectively influence in this type of situation.</i></p>
<p>Day 2:</p> <ul style="list-style-type: none"> ➤ Introduce our definition of influence ➤ Briefly review influence tactics (5-10 min) ➤ Debrief Assignment #1 (20 min) 	<p><i>Instructor reviews most illustrative examples of effective and ineffective use of tactics from Assignment #1.</i></p>
<ul style="list-style-type: none"> ➤ Intro to Multiparty negotiations (5 min) ➤ In-class role play (1 ½ hours) 	<p><i>In multiparty negotiations, the focus is on applying influence tactics in a group/multi-party situation and on specific strategies that facilitate this.</i></p> <p><i>During the in-class role play, participants are given some background information on a situation, based on a real life situation faced by a Major in Iraq. The situation involves a female staff Sergeant being assigned to be in charge of a particular operation, as well as perceptions of unfair treatment between two different Iraqi tribes who are contractors for the operation. Each student is assigned one of several roles. The students first meet one-on-one for 10 minutes with each of the other parties to try to address concerns and determine potential resolutions. After this, Major Joe (one of the roles) must hold a meeting with all parties at the table to resolve the situation. During each piece there is a “coaching corner” where students can seek help from an instructor.</i></p>

<ul style="list-style-type: none"> ➤ Distribute General Instructions and role play assignments for Radwaste I. ➤ Distribute Assignment #2 	<p><i>The second homework assignment requires students to create a brief set of principles or techniques that they think are important for influencing in multiparty situations, specifically. The principles or techniques can be comprised of strategies for applying the influencing tactics in FM 6-22 in multiparty situations, other general techniques that were not covered in FM 6-22, and techniques that would be specific to multiparty situations (or a mix of all of these). These should take into consideration not only the short-term impact of a technique or strategy, but also the long term implications of the technique on commitment of others and relationships with other individuals or groups. Each principle must include: 1) A definition of the principle and why you think it is an effective way to influence others; 2) An example of the principle; and 3) Guidance on when it is most appropriate to use this technique or strategy.</i></p>
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<p>Day 3:</p> <ul style="list-style-type: none"> ➤ Review Assignment #2 (10 min) ➤ Conduct Radwaste role play (60 min with votes every 20 minutes) ➤ Make ratings on self and other groups (post-test) (10 min) ➤ Debrief role play (20 min) 	<p><i>Students discuss the principles that they described in their Assignment #2.</i></p> <p><i>Radwaste Description</i></p> <p><i>The state is required by federal law to site a low-level radioactive waste (LLW) disposal facility within a year. The State Regulatory Agency responsible for siting the facility must develop a set of criteria. This agency is empowered to decide the criteria on its own, but would prefer to have these negotiated by parties specifically concerned about this issue of low-level radioactive waste. Seven stakeholder groups have an interest in the negotiation. If at least five of the seven agree to a set of ten siting criteria, these criteria will be adopted by the State Agency. In the absence of an agreement, the State will promulgate its own criteria. The seven parties include: a State Management Authority responsible for operating the facility; the Indian Tribal Council; a moderate environmental coalition; a more radical coalition of environmental and anti-nuclear activists; the Municipal and County Governments' Association; the Radioactive Waste Generators' Association; and the Governor's Blue-Ribbon Panel of Science and Economic Advisors. Parties must negotiate/influence in order to ensure that the Radwaste criteria meet their interests and concerns.</i></p>
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Appendix C: Course Materials

Center for Army Leadership

Technical Report 2006-2

Advanced Learning Theories Applied to Leadership Development

***Influencing Others: Building commitment
through effective influence***

Instructor Manual

Day 1

Note: The Harborco general instructions and confidential instructions should have been distributed previously

Module Goals

- Understand value of influence and how it relates to commitment of others
- Understand the difference between influencing individuals and influencing groups
- Increase awareness of strengths and developmental needs related to influence
- Improve your ability to influence others



2

Module Goals

Talking Points

Slide 2

This training module is aimed at helping you accomplish several goals, including:

- ◆ Understand the value of influence and how it relates to commitment of others
 - ◆ Understand the difference between influencing individuals and influencing groups
 - ◆ Increase awareness of your own strengths and developmental needs related to influence.
 - ◆ Improve your ability to effectively influence others to gain both short-term compliance and long-term commitment.
-

Structure of Training Module

- Day 1: Initial Role Play
- Day 2: Training Influence in Groups
- Day 3: Post-training Assessment



3

Structure of Training Module

Slide 3

Talking Points

The influence in groups module consists of three parts:

- ◆ Part 1 of the session involves an initial exercise in influencing others in a multi-party situation.
 - We will have you participate in two main activities in order for us to assess these skills.
 - First, we will have you participate in a role play exercise.
 - Second, we will ask you to participate in ratings.
- Finally, we will debrief with the class and discuss what happened during the role play and what could have been done differently
- ◆ In part 2 of the session we will provide you with training material about influence and about influencing in a group context.
 - The training is constructed to be in an interactive format.
 - This allows for a high degree of participation from you. The training includes some lecture, group discussion, and a case study.
- ◆ Part 3 of our module is very similar to the activities you will participate in during part 1.
 - This is both to provide another opportunity for practicing influence skills and to allow us to assess any improvements in skill in influencing others.



**Part 1:
Initial Role Play**

Slide 4

We will now begin part 1 of the training module, which is an initial role play exercise where you will be attempting to influence multiple people or groups.

Did everyone review the general instructions and confidential information?

Harborco Role Play Exercise



- Directions:
 - Determine initial strategy
 - Begin negotiation
 - Vote at 10 min, 40 min, and 60 min
 - Score results
 - Fill out checklist for 10 minutes
 - Debrief with class

5

Directions	Talking Points
<i>Slide 5</i>	<ul style="list-style-type: none">◆ During the role play each person will play a role in one of five parties: The Environmental League, Local Federation of Labor Unions, Other Ports in the Region, Federal Department of Coastal Resources (DCR), and Governor Sherwood.◆ Each party will be comprised of 1 or 2 people.◆ You will have 5 minutes to plan with your teammate what you will say during the discussion.◆ Next, all parties will come together and we will begin the negotiation. <p><i>We will be the game manager—</i></p> <p><i>Read game ground rules</i></p> <p><i>Answer questions</i></p> <p><i>Conduct votes at 10 min, 40 min, and 60 min.</i></p> <p><i>Debrief</i></p> <ol style="list-style-type: none">1. What was each party's goal in this situation? Was this goal clear?2. What influence tactics did you use (in the Harborco role play they won't have read about 6-22 tactics yet, so this will be more general)?<ul style="list-style-type: none">➤ Why did you choose to approach the negotiation this way?➤ This question can be asked of each individual or group.3. How did (target) react?

After debrief, pass out reading and assignment for next class.

4. How effective would you say these tactics were?
 - Why do you think these tactics worked or didn't work?
 5. Did (influencer) change his or her approach appropriately in response to the reaction?
 6. What could (influencer) have done differently to be more effective in this scenario?
 8. Would you want to deal with (influencer) in future negotiations? Why or why not?
 9. How committed would you be to an initiative led by (influencer)?
-

Day 2

Influencing Others: An Application to Groups

The Army defines leadership as “influencing people – by providing purpose, direction, and motivation—while operating to accomplish the mission and improving the organization”

6

Introduction Slide 6

Talking Points

Welcome participants back.

Defining and Making the Case for Influence

Allow a couple minutes of discussion about this point

Allow a couple minutes of discussion about this point

- ◆ The Army defines leadership as “influencing people – by providing purpose, direction, and motivation—while operating to accomplish the mission and improving the organization”.
 - Thus, the concepts of leadership and influence are inextricably linked via the Army’s definition of leadership.
- ◆ Why do you think the Army places such an emphasis on influence?

Encourage students to share their ideas.

Make sure they touch on the fact that leaders now must influence people (such as those from other countries) that do not care what rank they are. Furthermore, they must influence those of equal rank or above.

- ◆ Do you know of any individuals who you consider to be very effective leaders because of his or her ability to influence others?

Encourage students to share personal examples.

Share a personal example of your own if appropriate to get the conversation flowing.

Try to address the concept of commitment versus compliance.

- ◆ This module is designed to help you become a better influencer.
 - We will first address influencing tactics generally, but then focus on how these are applied in group and multi-party situations. The reason for this is that so many situations that leaders face occur in complex situations, with multiple issues and individuals or groups involved.

Training Influence in Groups

- Types of Influence
- Influence Strategies
- Group Negotiations
- Multiparty Negotiations
- Group Negotiation Exercise

7

Part 2: Training Influence in Groups

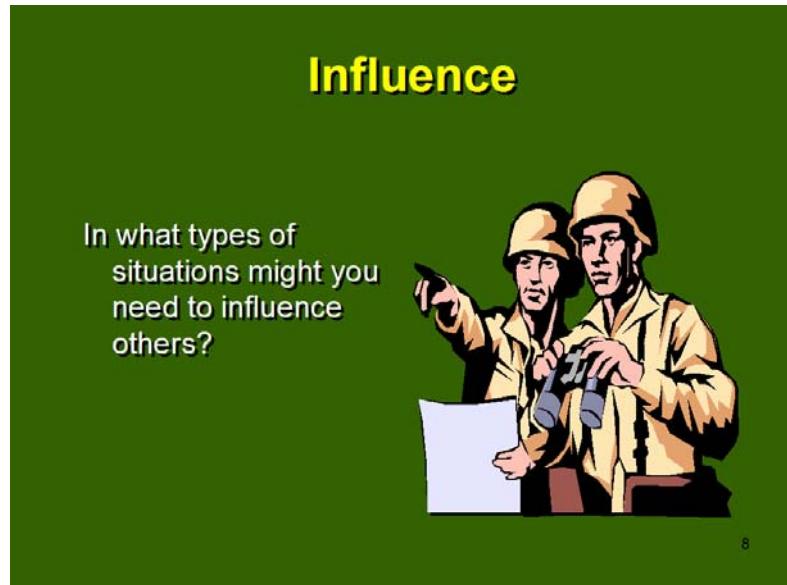
Slide 7

Talking Points

This module is intended to train on specific aspects of influence to help you improve your skills in influencing others. We hope that these skills will enhance your leadership ability and to help you elicit commitment from your subordinates and other groups with whom you may interact.

This module will include:

- ◆ Types of influence
 - ◆ Influence strategies
 - ◆ Group negotiations
 - ◆ Multiparty negotiations.
-



Influence

Talking Points

Slide 8

- ◆ What are the goals when trying to influence others (besides the obvious)?

Expected answers should touch on the following:

Allow a couple minutes for discussion on this point

- *Different types of influence relationships (e.g., peer to peer, upward, downward, or with a 3rd party).*
 - *Different influence goals (e.g., short-term compliance, long-term commitment which would entail changing the hearts and minds of others).*
 - As you've just described, the ability to successfully influence others is critical in a wide variety of situations.
-

Influence

- Holding rank or power is not enough
- Also need to have:
 - Good understanding of influence tactics
 - Understanding of how effective influence can build commitment
 - Understanding of influence in groups

9

Influence

Talking Points

Slide 9

Traditionally, military leaders gave orders and subordinates complied without question. However, as we discussed, more and more leaders are in situations that require more than simply giving an order to be effective.

To be persuasive you need to have:

- ◆ Good communication skills.
- ◆ A good understanding of various influence tactics and when to use them.
 - By influence tactics we mean the specific actions one takes to try and persuade another person to comply with a request (e.g., give rational arguments for why the person should comply).
- ◆ Knowledge of group and inter-group dynamics.
- ◆ An understanding of the implications of influencing others. For example, support is defined by both short-term compliance (e.g., agreeing to support a decision, agreeing to comply with a task, etc.) and long-term commitment (e.g., following through to complete the request, changing one's own perspectives to be congruent with the influencer's perspectives). Both are important, but the focus of this module on influence that leads to more long-term commitment.
- ◆ An understanding that influence is not necessarily an adversarial activity.
- ◆ In this section, we'll talk about several types of influence and when they are appropriate to use.
- ◆ We'll also talk about specific influence tactics and strategies.
- ◆ Before we review the tactics you read about last night, we're going to

Conduct in-class activity

do a short activity.

Have everyone pair up. Put a tape line on the ground with each pair. Each person should then face their partner, on opposite sides of the tape line. The only instruction is to convince the partner to cross the tape line. Give them 2-3 min to try to convince their partner to cross the line.

If after 2-3 minutes no one has successfully solved this problem, reveal to them that the most effective way to meet both people's goals is to count to 3 and then cross the line at the same time.

The point of this exercise is that people often see an influence target as a competitor or foe of some nature. This is often not the case---many times collaboration can occur and both parties can achieve at least something that they are trying to accomplish.

Types of Influence



- Pressure
 - Demands or threats
- Legitimate Requests
 - Authority to influence target
- Exchange
 - Willingness to reciprocate for assistance

10

Influence Tactics Talking Points

Slide 10

The first two tactics will usually gain the influencer compliance and assist at achieving short-term outcomes, but they may have negative long-term outcomes as well.

- ◆ We'll begin by reviewing influence tactics that are more compliance-based and moving toward those that are more commitment-focused. For the purpose of this module, we will be focusing on tactics that focus on building longer-term relationships—not just achieving a short term goal.
- ◆ You read about several influence tactics in your reading last night.
- ◆ *Use the Socratic method to review these. Go through each tactic and have someone define it (generally), someone else talk about a "pro" of using that tactic, and someone else talk about a "con" with using the tactic. Should try to hit on the points below.*
- ◆ Pressure
 - Using demands or threats to coerce the target into completing the goal.
 - Can be appropriate as a strategy of last resort when no other strategies have worked.
 - Resistance may be a likely outcome.
- ◆ Legitimate requests
 - Claiming or verifying one's authority to influence the target.
 - Can be appropriate if the influencer truly has the authority to compel the target to comply.
 - Should be used as a last resort as resistance is a likely outcome.
- ◆ Exchange
 - Indicating a willingness to reciprocate for assistance in meeting the goal.
 - As the concept of reciprocity is a universal human value, this tactic is appropriate in a wide variety of circumstances to secure compliance.

-
- To ensure long-term commitment, the exchange must be perceived as fair by the target.
-

Types of Influence Cont'd

- Personal appeals
 - Appealing to target's sense of loyalty or friendship
- Collaboration
 - Offering target assistance to complete goal
- Rational persuasion
 - Logical arguments and factual evidence
- Apprising
 - Explaining individual benefits for target if goal is met



11

Influence Tactics Cont'd

Slide 11

Talking Points

- ◆ Personal Appeals
 - Appealing to the target's sense of loyalty to or friendship for the influencer prior to attempting to influence the target.
 - Appropriate when the influencer and target have a strong relationship or when the influencer has built up a solid level of "Idiosyncrasy Credit". Also this tactic may be highly appropriate in cultures where personal relationships are critically important to getting things done (e.g., Middle Eastern countries).
 - If not overused, this tactic may lead to short-term compliance and long-term commitment.
 - ◆ Collaboration
 - Offering to supply assistance or resources to help the target complete the goal.
 - Similar to exchange, this tactic may be appropriate in a variety of circumstances as long as the influencer has the ability to follow through on the promise of assistance.
 - Lack of trust may lead to resistance, and failure to follow through may lead to lack of long-term commitment.
 - ◆ Rational Persuasion
 - Refers to using logical arguments and factual evidence to persuade the target that a goal is viable.
 - Especially appropriate when the influencer's arguments are very compelling and few, if any, counter-arguments exist.
 - When done well, this tactic can lead to long-term positive outcomes. However, if the influencer cannot effectively counter any counter-arguments, the target may resist the request.
 - ◆ Apprising
 - Explaining the benefits of the influencer's request to the target as an individual.
-

-
- Similar to rational persuasion, this tactic may be appropriate if the influencer has compelling arguments about how the request benefits the target, and few, if any, counter-arguments exist.
 - If the target perceives a substantial benefit, outcome may include compliance and long-term commitment.
-

Types of Influence Cont'd

- Inspiration
 - Appealing to target's values, ideals, etc.
- Participation
 - Soliciting input into the strategy for achieving the goal.
- Relationship Building
 - Build rapport and a relationship of mutual trust



12

Influence Tactics Cont'd

Slide 12

Talking Points

- ◆ Inspiration
 - Appealing to a target's values, ideals, or aspirations to increase the target's enthusiasm or confidence.
 - Appropriate if the influencer has a solid understanding of the target's values and aspirations.
 - If used appropriately, this tactic can lead to long-term commitment.
- ◆ Participation
 - Soliciting input from the target into the strategy for achieving the goal.
 - Appropriate if the target is from a cultural background that values a collaborative approach to problem solving. In cultures with a very high power-distance (e.g., Latin America), high-ranking leaders may appear weak if individuals of much lower status are consulted on decisions.
 - Can lead to long-term commitment if used in an acceptable manner, as this tactic tends to build trust between the influencer and the target.
- ◆ Relationship Building
 - Building positive rapport and a relationship of mutual trust, making followers or other parties more willing to support requests.
 - Includes showing a personal interest in others' well-being, offering praise, and understanding others' perspectives.
 - Particularly effective over time.

Homework assignment



13

Discussion

Talking Points

Slide 13

- ◆ Choose a few of the examples students emailed the night before. Ask those students:
- ◆ What was the situation—what was your goal?
- ◆ What tactic did you use to try to persuade the other person?
- ◆ Why did you use this tactic?
- ◆ What happened then—how did your target react?
- ◆ Did you ever change tactics—why?
- ◆ What was the outcome?
- ◆ Is there anything you would have done differently if you were in the same situation again?
- ◆ What did your partner say about the situation and the tactics you used?

*Generate ideas
about how these
examples would
have impacted
trust/commitment
to leader or group*

Influence Strategies

- Focus on the issues and know what is important to you
- Be receptive to others' ideas
- Situations are rarely a zero-sum game
- Establish trust

14

Influence Strategies

Slide 14

These are some general strategies that can enhance your use of tactics—this could have been covered in the course already, but good to review how they relate to these tactics.

Talking Points

- ◆ Key consideration: Remember is to focus on the issues and know what is important to you. Techniques like rational persuasion, exchange, collaboration, and participation will only be effective if you keep in mind the issues that are important to you. Several of these may involve that you "give" a little. Know what you can give on and what you can't.
 - ◆ Be receptive to others' ideas. Actively listen to what they say and give their ideas fair consideration. This is crucial to effective collaboration and participation, as well as to relationship building.
 - ◆ Situations are rarely zero-sum games—there may be ways for both parties to get at least some of what they want if they listen carefully to the other, are clear about what they really want, and are creative in how to "increase the size of the pie." The most effective cases of participation, exchange, and collaboration involve being creative about addressing as many interests as possible.
 - ◆ Work to establish trust. This is a cornerstone in long-term relationships with individuals or groups.
-

Influence in Groups

- What is the difference between influencing one person and influence in a group context?
- What are the challenges of influencing people in a different group?

15

**Influence in Groups:
Discussion**

Slide 15

*Allow about 1-2
minutes of
discussion.*

Talking Points

- ◆ What is the difference between influencing one person and influence in a group context?
- ◆ What are the challenges of influencing people in a different group?

*They should hit on the fact that the other group has their own dynamics,
may be cultural differences, stereotyping, groups tend to polarize.*

*Can use Socratic
method here*

Influence in Groups Cont'd

- Challenges of intergroup negotiation
 - Stereotyping
 - Changing identities
 - In-group bias
 - Extremism

16

**Challenges of
Intergroup
Negotiation**

Slide 16

Talking Points

- ◆ Challenges of intergroup negotiations
- ◆ Stereotyping – parties identify with their organization and often hold negative impressions about members of the other organization.
- ◆ Changing identities – People identify with many different social groups, and at any given time, one group might be more or less salient to individual. For example, being a member of a particular unit may be most salient at times, whereas being a member of the U.S. Army may be most salient at others.
- ◆ In-group bias – Positive evaluations of one's own group relative to the out-group. When we engage in negotiations with out-group members, we are more likely to engage in downward social comparison where we evaluate the competitor to be less attractive on a number of organizationally relevant dimensions.
- ◆ Polarization – Groups, especially in times of conflict, do not have an accurate understanding of the views of the other party and exaggerate the position of the other side in a way that promotes the perception of conflict. This happens because people expect others to hold views of the world similar to their own. When persuading others with evidence does not work, people regard the other side as extremists who are out of touch with reality.
- ◆ *Ask them to talk about others. The above are from readings so are a good starting place, but they should have their own examples from their experiences.*

Strategies for Optimizing Intergroup Negotiations

- Separate conflict of interest from symbolic conflict
- Search for a common identity
- Avoid out-group homogeneity bias
- What are others?

17

Intergroup Strategies

Slide 17

Encourage them to come up with additional strategies—this list is a good start, but there are probably others from their experience

Talking Points

- ◆ How do we deal with the challenges of working with other groups and individuals from other groups?
- ◆ How can we optimize the use of influence tactics in a group situation?
These are some strategies to optimize the extent to which more commitment-focused tactics can be used—these help groups engage in more relationship building behaviors so that they do not resort to more compliance-based.
- ◆ Separate conflict of interest from symbolic conflict – Many of conflicts between groups have their roots in a fundamental difference in values—not the issues at hand. Have to separate this out from what you are trying to accomplish in a given negotiation.
- ◆ Search for common identity – To the extent groups in conflict can share a common identity (e.g. U.S. military or a collaborative multi-national effort), conflict and competition can decrease dramatically, and cooperation can increase. This can make techniques like collaboration and participation more productive.
- ◆ Avoid the out-group homogeneity bias – It is important for people to treat members of outgroups as individuals—not just categorize them as part of the outgroup. This is crucial for relationship-building behaviors.

Are there other strategies you have come across that have been effective in influencing in a group situation?

Strategies for Optimizing Intergroup Negotiations Cont'd

- Greater contact among members of diverse groups:
- Social and institutional support
- Acquaintance potential
- Equal status
- Shared goals
- Cross-group friendships

18

Intergroup Strategies

Slide 18

Ask for examples
of when contact
has worked or not.

Talking Points

- ◆ There is a principle that greater contact among members of diverse groups increases cooperation among group members. In fact, this is crucial to relationship building tactics and establishing trust generally.
- ◆ **Is increasing contact always a good idea?**
Unfortunately, no—in fact, sometimes contact makes relations worse. Several conditions must be in place before contact can have its desired effects:
- ◆ Social and institutional support – People in positions of authority should be unambiguous in their endorsement of the goals of the initiative. This can foster the development of a new social climate in which more tolerant norms can emerge.
- ◆ Acquaintance potential – Any contact must be of sufficient frequency, duration, and closeness to permit the development of meaningful relationships between members of the groups. Close interaction leads to discoveries of similarities and helps to disconfirm any negative stereotypes.
- ◆ Equal status – Group members should work on equal footing. Many stereotypes of out-groups comprise beliefs about the inferior ability of out-group members to perform given tasks. If the contact situation involves individuals who are not well-matched in terms of status, this stereotype may be reinforced.
- ◆ Shared goal – When members of different groups depend on each other for the achievement of a jointly desired objective, they have instrumental reasons to develop better relationships.
- ◆ Cross-group friendships – If group members know that another member of their own group has a friendship or relationship with a member of the out-group, or a cross-group friendship, in-group members have less negative attitudes toward the out-group.

Key Challenges of Multiparty Negotiation

- Coalitions
- Formulating tradeoffs is more difficult
 - Issues may be linked
 - Tradeoffs may be reciprocal or circular
- Voting and majority rule
 - Voting masks preferences
 - Voting paradoxes
 - Strategic voting and misrepresentation

19

Multiparty Negotiation

Slide 19

Allow discussion here. Ask for examples of students' experiences with multiparty negotiation.

Talking Points

- ◆ What about when there are more than two groups involved?
 - ◆ Multi-party negotiation is a group of three or more individuals, each representing their own interests, who attempt to resolve perceived differences of interest. It is a highly complex activity that can be the subject of a semester-long course. We will be focusing today on the fundamental challenges of multiparty negotiation and some specific strategies for influencing effectively in a multiparty situation.
 - ◆ **Can anyone think of what some of the specific challenges to influencing effectively in a multiparty situation might be?**
 - ◆ Coalitions – In multiparty there is the potential for two or more parties within a group to form a coalition to pool their resources and have a greater influence on outcomes. Coalitions involve both cooperation and competition—cooperation, including tactics like collaboration, exchange, and consultation, with other members of the coalition and competition against other coalitions.
 - ◆ Trade-offs, such as those that may be involved in exchange or collaboration, can be much more complex (can be reciprocal or circular).
 - ◆ Voting problems—taking simple majority rules votes can stifle creativity, minority group can be left out completely, so true consultation becomes very complex.
-

Key Challenges of Multiparty Negotiation

- **Communication breakdowns**
 - Private caucusing
 - Uneven communication
 - Multiple audience problem
- **Behavioral challenges**
 - People behave more competitively in groups than they do one-on-one
 - People behave more competitively when they are accountable to someone or a group (“accountability pressure”)

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Multiparty Negotiation

Slide 20

Again, these are some common ones, but encourage them to generate other challenges.

Give students a couple of minutes to come up with this.

Talking Points

- ◆ Communication breakdowns – For example, private caucusing can cause problems because not all parties are involved in the discussions. Also, any mistaken assumptions made about requests or statements are amplified because of the increased complexity.
 - ◆ Behavioral Challenges – people tend to be more competitive because there is diffusion of responsibility among the group and, simultaneously, individuals feel accountably to the group
 - ◆ Now think about a time when you dealt with a difficult multiparty challenge.
 - ◆ Who would like to “stump the class” with their situation?
 - ◆ As a group, have them work through ideas of strategies to overcome the influence challenge. Allow the person whose situation it was to play “devil’s advocate” and present challenges to the strategies, similar to the ones they encountered in the situation.
 - ◆ Find out how the situation ended in real life—what would that person have changed about how they handled that situation in real life?
-

Strategies and Tactics for Multiparty Negotiation

Mutual Strategy	Coalitional Strategy	Individual Strategy
<ul style="list-style-type: none">Share own and elicit others' interestsConsider many alternatives; be creative; look for ways to use available resourcesDon't just make compromises; make tradeoffsEncourage positive relations	<ul style="list-style-type: none">Seek similar others and construct an alternative that meets your interestsRecruit just enough members to control the group's decisionEncourage interpersonal obligations among coalition members	<ul style="list-style-type: none">Open with a high, but not outrageously high demandArgue the merits of your alternative; do not reveal your interestsAppear unable or unwilling to concedeUse threats; time deadlines, and promises, if necessary

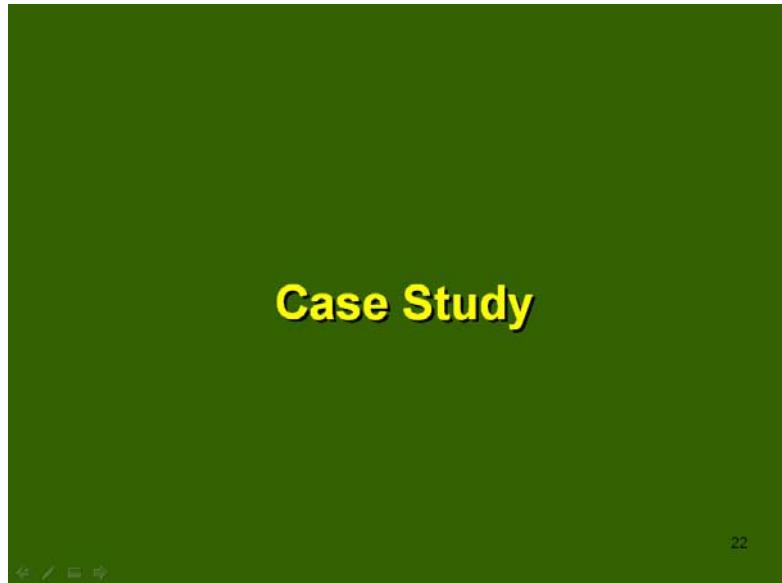
21

Strategies and Tactics for Multiparty

Slide 21

Talking Points

- ◆ To influence in a group while fostering commitment requires a mutual strategy between groups:
 - Share own and elicit others' interests (rational persuasion; collaboration)
 - Must be more systematic in a multiparty situation, however.
 - May have to be more organized and formal in tracking interests of all parties because they can become very complex
 - Consider many alternatives; be creative; look for ways to use available resources (collaboration and participation)
 - In multiparty, this includes striving for equal participation among different groups.
 - This does NOT mean, however, that outcomes have to be divided equally.
 - Allow both for points of agreement (even if it's only on process) AND for points of disagreement.
 - Don't just make compromises; make tradeoffs (exchange, collaboration)
 - Avoid agreement bias, however. There is more pressure to just settle—do not lose sight of your interests and allow for points of disagreement.
 - Encourage positive relations (relationship building)



Case Study**Talking Points**

Slide 22

*Pass out case
study*

*Allow about 3-4
minutes for them
to read case
study.*

*Allow students to
stay in role for 2-3
min.*

- ◆ Assign or ask volunteers for people to “play” different roles.
 - ◆ Allow them to begin negotiating with each other as CPT. Wilkerson, Iraqi contractors, etc.
 - ◆ Stop periodically and have other students take over role of CPT. Wilkerson and other roles.
 - ◆ At the end, ask role players, which tactics they used and why. Allow other students to provide feedback.
 - ◆ Tell them how the story ended in real life.
-

Some Final Points on Group and Multiparty Negotiations

- Be Prepared
 - Know your interests
 - Have an influence strategy in mind
- Create and Distribute Value
 - Explore interests on all sides
 - Suspend criticism
 - Generate options and packages that "make the pie larger"
 - Behave in ways that build trust
- Follow Through
 - Agree on monitoring arrangements
 - Make it easy to live up to commitments
 - Keep working to improve relationships

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Discussion

Talking Points

Slide 23

- ◆ There are several points to keep in mind, regardless of specific situation
- ◆ Always keep in mind your interests and your BATNA
- ◆ Have an influence plan before you begin
- ◆ Be open to exploring interests on all sides
- ◆ Be receptive to others' ideas and reign in criticism
- ◆ Be collaborative in generating options—work to "make the pie bigger"
- ◆ Be a trustworthy leader – do not break your promises
- ◆ Agree on monitoring arrangements
- ◆ Don't commit to things that are going to be very difficult or impossible to fulfill
- ◆ Always keep working to improve and maintain relationships

Distribute general and confidential instructions for final role play and Assignment #2.

Day 3

Part 3: Post-training Assessment



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Homework #2 Debrief

*Spend about 10
min on this*

- ◆ Select 2-3 examples from the homework assignment.
- ◆ Ask students to provide the situation, the tactic used, why they used that tactic, how well it worked, and what they might do differently.
- ◆ Try to introduce novel situations and find out if/how they would have changed their tactic (e.g., other group formed a coalition, there was a communication breakdown, one group was being very competitive).

Part 3: Post- training Assessment

Slide 24

*Instructions should
have been
distributed as
take-home reading
the class before.*

Talking Points

The final activity we will be doing is the post-test role play exercise.

- ◆ As with the last exercise, you will be engaging in a role play with several other people.
- ◆ The purpose of this role play is two-fold: 1) to provide you with an opportunity to practice the concepts covered in the last section and 2) to allow us to measure the effectiveness of this module.
- ◆ After you complete some ratings, we will debrief with the class about the role play.

Post-Test Role Play Exercise



- Directions:
 - Determine initial strategy
 - Begin negotiation
 - Vote every 20 min.
 - Score results
 - Fill out checklist for 10 minutes
 - Debrief with class

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Directions
Slide 25

Roles should already be assigned

Talking Points

- ◆ During the role play each person will play the role of seven parties: Public Management Authority (PMA), Federated Indian Tribal Council (The Council), Environmental Coalition (EC), Green Wave, State Association of Municipal and County Governments (The Association), Association of Radwaste Generators (ARG), The Governor's Blue Ribbon Advisory Committee (The Committee).
- ◆ You will have 10 minutes to review the instructions and your scenario and plan with your teammate what you will say during the discussion.
- ◆ Next, all parties will come together and we will begin the negotiation.

We will be the game manager—

Read game ground rules

Answer questions

Conduct votes every 20 minutes.

Debrief

7. What was each party's goal in this situation? Was this goal clear?
8. What influence tactics did you use?
 - Why did you choose to approach the negotiation this way?
 - This question can be asked of each individual or group.
9. How did (target) react?
10. How effective would you say these tactics were?
 - Why do you think these tactics worked or didn't work?
11. Did (influencer) change his or her approach appropriately in response to the reaction?

-
12. What could (influencer) have done differently to be more effective in this scenario?
 13. Would you want to deal with (influencer) in future negotiations? Why or why not?
 14. How committed would you be to an initiative led by (influencer)?
-

Homework Assignment #1

A. Applying Influencing Skills to Everyday Negotiations

There are many everyday situations in which you are influencing and perhaps you don't even know it. Whether it is a situation in which you are trying to determine your monthly spending with your spouse, negotiating with your child on what time they should go to bed, or convincing a friend to go out to the place you want to go that night, you are constantly influencing as part of your everyday negotiations.

In this section of the course we will be teaching you different influencing tactics that you will be able to use to enhance your negotiations with others. First, it is important to be aware while in engaged in negotiation that influence is going on. Second, it is important to be evaluating the environment or the relationship that you have with the person that you are attempting to influence. This will help determine how you can influence them. Lastly, it is important to know which types of tactics that you are more prone to using and why.

Your assignment is to conduct a negotiation with someone in your everyday life, using one or more of the tactics described in your reading assignment. This means your first task is to read the excerpt of Chapter 7, FM 6-22 (in review) provided to you. Then identify an everyday negotiation situation. Be sure that what you are negotiating for is actually negotiable. Also, you should negotiate over something that is 'real world', meaningful, and the outcome of which has actual consequences of some importance. To give you some ideas over what to negotiate, ask yourself the following questions:

- Am I contemplating a major purchase (car, appliance) whereby it would be legitimate for me to visit a dealership and do some preliminary negotiation to determine the type of deal I might expect to receive?
- Is there any activity or behavior I would want those senior or peer to me in the workplace change or adapt to?
- Is there any activity or behavior I would like my spouse/significant other/children to start/stop/do differently?
- Is there any behavior my spouse/significant other/children would want me to start/stop/do differently (and that I am willing to negotiate over)?
- Is there some future event (e.g. vacation location, visit with in-laws) over which I and others have differing views on and is subject to negotiation?

Note: You may use a recent negotiation you conducted if a present situation does not come to mind.

There are a couple of caveats to this assignment:

- Do not try to influence a gas station attendant to give you a free tank of gas when they would be breaking the law to comply (something that is non-negotiable with the other party).
- Negotiate for something that is real to you. Don't string a salesperson (or your spouse) along on something you don't intend to do.
- Do no harm.

Other than these guiding principles, use your common sense and creativity to determine what you are negotiating for and with whom.

After the negotiation send an e-mail to your partner (see below) about how the negotiation went. The outcome of the negotiation is of course important to include in the e-mail. However, for this task try to go beyond just whether or not your negotiation was successful. Think and explain *why* it was successful (or *why* it failed). For instance, the e-mail should include things that you notice about your influencing skills as well as the responses that they illicit in the person that you are doing the negotiating with. Describe your negotiation in terms of the FM 6-22 tactics. While the outcome of your negotiation is important, focus on the means that you chose to achieve your desired outcome.

Both you and your partner(s) need to send an e-mail to each other explaining your negotiation session NLT noon *the day prior to Meeting 11*. After you receive your partner's e-mail, reply to him/her with your thoughts about their negotiation. For ideas try and draw on your negotiation or previous negotiations experience. For instance, your partner may have had a difficult time and you very well may have had a similar experience. This would be something to write about. When replying try to give positive feedback while critiquing and evaluating how your partner performed during the negotiation. Complete your e-mail dialogue with your partner(s) by 2000 hours *the night prior to Meeting 11*. Be sure to copy the instructor (sauude@icfi.com) on all of your e-mail communications with your partner(s).

Recap:

- Read the excerpt from FM 6-22 on influencing tactics.
- Initiate a real negotiation from your everyday life experiences and relationships.
- By Noon the day prior to Meeting 11, write an e-mail to your partner about how the negotiation went and what you did to try and influence the person that you were negotiating with.

- By 2000 the day prior to Meeting 11, complete an e-mail dialogue with your partner (s) about each negotiation.
 - Partner(s) e-mail Address:
 - Copy the instructor (sauude@icfi.com) on your e-mail discussion.
 - Come to class prepared to discuss your negotiation and that of your partner.

Questions? Contact Steve Aude, 913 684 9780 or sauude@icfi.com

B. Prepare for Multi-party negotiations role play to occur during Meeting 11

- Read the handout “Multi-Party Negotiations – Background”
- Read the handout with your individual, confidential role description
- Prepare for individual negotiation sessions between yourself and the other parties to this negotiation: MAJ Wilkenson, Ashon – the interpreter, Tiger Tribe Leadership, Lebanon Street tribe leadership, SSG Rhonda Kimmons.

Homework Assignment #2

A. Applying Influencing Tactics to Multiparty Negotiations

We have discussed a number of influencing tactics based on FM 6-22 (draft), such as exchange, apprising, and relationship building. While these techniques can be used in a range of situations, there may be some differences in how you apply them in a one-on-one situation, group negotiation, or multiparty situation. In the last 2 classes you have engaged in several multiparty negotiations and discussed examples of when you have engaged in this type of experience in your everyday life.

For the final homework assignment, we would like you to create a brief set of principles or techniques (1-2 pages) that you think are important for influencing in multiparty situations, specifically. These can be comprised of strategies for applying the influencing tactics in FM 6-22 in multiparty situations, other general techniques that were not covered in FM 6-22, and techniques that would be specific to multiparty situations (or a mix of all of these).

These should be based on your experiences in multiparty situations, both in and out of class, and should take into consideration not only the short-term impact of a technique or strategy, but also the long term implications of the technique on commitment of others and relationships with other individuals or groups.

Each principle should include:

- A definition of the principle and why you think it is an effective way to influence others
- An example of the principle
- Guidance on when it is most appropriate to use this technique or strategy.

Questions? Contact Steve Aude, 913 684 9780 or saude@icfi.com

C. Prepare for Multi-party negotiations role play to occur during Meeting 13

- Read the handout with your confidential role description
- Prepare for individual negotiation sessions between yourself and the other parties to this negotiation: Public Management Authority, Federated Indian Tribal Council, Environmental Coalition, Green Wave, State Association of Municipal and County Governments, Association of Radwaste Generators, and The Governor's Blue Ribbon Advisory Committee.

IRAQI Role Play
Multi Party Negotiations - Background

My name is Major Joe Wilkenson. I was in Operation Iraqi Freedom with my Field Artillery unit doing direct support to an Armored Cavalry Regiment. We entered into Iraq in the summer of 2003 and in November of 2003 we picked up a Captured Ammunition (CA) mission. Our mission was to maintain security of as well as the demolition of the ammunition that had been found at this particular Ammunition Storage Point (ASP). This was one of the fifth largest ASPs found in Iraq. There were 168 bunkers that had been located at our ASP. In our time there we were successful in destroying roughly 10,000 tons of ammunition. The following story is about the time I spent in command at the ASP and the challenges that I faced.

The contract called for us to use exclusively Iraqi contractors and 200 civilian Iraqi workers. We had to get our work force established and ready because we were to begin destruction of the ammunition on Jan. 1 when 10 civilian Explosive Ordnance Disposal (EOD) were coming to begin demolition. So we had roughly 2 months to prepare our workforce. First, we hired a contractor to go to Baghdad and hire workers. He hired 100 workers off of one street called Lebanon Street and another 100 workers from the Tiger Tribe area that is located in a more rural district outside of Baghdad. We found out immediately that these two groups, being from different tribes, did not work well together so we chose to keep them separated.

We found two abandoned buildings that had been gutted during the war by looters and had one group live in one building and the other group live in the other. Within a week they had restored the buildings to a livable condition. Things were running fairly smooth and during this time we experienced 0 fatalities while the Iraqis were at work. We provided security, medical support, housing, and we had hired contractors to provide food for the workers. In addition, the workers were also paid \$7.50 an hour which is much better than a typical hourly wage in Iraq which is closer to \$4.50.

Essentially, the job of the Iraqi workers was to carry the ammunition from the bunkers to the trucks and load it up. From there the trucks would go to the demolition site and the Iraqi workers would unload the trucks. This job started at 0700 and ended usually around 1700. The job was not without its dangers and we did have several accidents where a worker who would drop ammunitions inside a bunker would be severely injured.

The biggest initial challenge was the language barrier. Immediately after we started operations we realized this problem. However, within a week several of the workers came forward and let us know that they knew English. Most of the English speakers that we had were college professors. We hired 8 linguists in total to be our go betweens with the workers when the Iraqi contractors were not there. In all reality they served in many instances as go betweens for our forces and the contractors because, although most of the contractors spoke some English, it

was not possible in many instances to understand enough to communicate important ideas and so forth.

The linguists had no real authority. We left the authority in the hands of the Iraqi contractors that had contracted the Iraqi workers. However, at times it was necessary to communicate directly with the Iraqi workers and their leaders when the contractors were not around or not there.

After a few weeks of operation we began experiencing some problems between the linguists and the Iraqi workers. The workers did not like the linguists and they especially hated taking orders from them even though the linguists were really just passing our messages along. This was a problem.

Due to the size of our force we didn't always have enough time to be present when our interpreters were speaking with the workers. However, the workers were more than respectful of any directives that our force put forth when we were around and were respectful of our superior authority, probably because they were told by their contractors that they would be replaced if they were not. Anyways, several of the linguists had expressed fear for their security and some had mentioned quitting which we couldn't have because we needed them to perform their essential function.

The solution that I came up with was to move the linguists into our building. By this time the linguists were all trusted workers and although we monitored them they had become the lowest security risk to our forces. I told my guys that for one month any directive that they needed carried out by the linguists they needed to accompany the linguists and be present during the communication process. Lastly, I went to the contractors and told them to instruct the workers to back off the linguists and that any harm that came to the linguists would result in new contractors being sought and old workers being tossed out.

The results were great. After a month the linguists were able to pass on directives without us being present and the workers left them alone I think that they got the idea after we moved them into our building. Also the linguists began doing things that they had not done before like informing us of worker anger that was brewing or telling us who to keep safe distance from because of any animosity that group or individual harbored against our forces. I should say that over time the workers began to police themselves and that any animosity that they had towards our forces was due to the circumstances of our situation and not some overarching hatred for Americans.

For instance, let me tell you about brass. Brass was a pain in my ass. Our largest overall challenge that we faced was dealing with the brass we had on hand. Brass in Iraq can net you a fortune and the workers knew it. We had literally hundreds and hundreds of tons of brass because that was what most of the ammunition shells were made of. The workers began to stir and they would say, "We don't have to work for the Americans. The ammunition belongs to Iraq

we want to sell it ourselves and make more money than what you're paying us." What they didn't realize is that we couldn't just have them taking control of the ammunition destruction because then the ammunitions would be stolen or sold to be used as IEDs and that we couldn't stand for.

The brass was so much of a commodity that we had looters who would try to sneak in at night just for the brass. You would think that they were trying to steal the ammunitions themselves, but we would come in after some brass had been stolen from a bunker and find all of the propellants emptied from the shell. In fact, a group of looters before we had arrived had done the same thing except one of them smoked cigarettes and BANG. They were now buried in the bunker.

We immediately began searching the Iraqis when they left the ASP to go home for leave or to go out. We never found anything on anybody because by this time we had built up trust with their leadership to enforce rules and standards. However, our linguists informed us almost on a daily basis that worker anger on the subject still continued to mount. I knew that eventually if we did not do something different the worker anger would go beyond the leadership's control and potentially something bad might happen.

Knowing that I had to do something I thought about it daily trying to figure it out. I could either fire the entire workforce and start all over, which had some pretty large downsides concerning lost time in accomplishing the mission and the potential threat of retribution from the workers, or I could figure out some way to make it work for everyone. One day I went to my superior and asked him if it was possible to contract someone through whom our forces could sell it. He said he'd find somebody, but asked me what I intended to do with the money. I explained the situation with the workers and I told him that my intention was to give the money back to the workers. He said he liked the idea and within a week he had somebody and we began getting money for the brass.

Before I dispersed any of the money I went to the worker leadership, not the contractors of the workers, and I explained to them my position. I brought them all together and told them that there was no way that I could let the workers have the brass that it just wasn't possible because I didn't want the ammunitions to be back out in circulation. They all said they understood, but said that something must be done. I asked them to write down a list of all the things that their workers wanted. I asked them to go to the workers and actually ask them.

After we had the brass contractors come in and we saw some money I brought all of the most trusted leaders in again. I took a look at all of the lists that they had made up from their workers requests and I checked off all of the things that they were allowed to buy. Then I gave them the money saying that the only way this process would continue is if there were receipts for everything. They went out and were back within a day. They brought back steel-toed work boots, leather gloves, uniforms, bedding, stuff for them to sleep on because the workers were poor and

couldn't afford for these necessities on their own. We made sure that the necessities were taken care of first and then next we hired someone to come in and make goal posts so the different groups could play soccer against each other. They loved that. As things progressed we started buying them sheep and goats and they would use them to make good food with. Heck, we even got a color TV with satellite reception that everybody could watch. The program worked well.

Within no time at all the workers had forgotten about all of their complaints. They saw that if the brass went to us within a week they'd get something new that they wanted. They began to police themselves and it even became a little bit of a competition between the different groups that worked there. The amount of our security needed to guard the brass and ammunitions at night from outside looters was lowered because the workers didn't want anyone coming in and robbing there potential rewards.

By this time there were about 6 different groups all with their own respective leaders who would only take orders from their leaders. It was funny to see how the program turned into a competition, because one week you'd see one group in a bright shiny new red uniform. Then another group would pop up later with an even shinier green uniform. Pretty soon every group had their own uniforms. When I say uniforms I mean everything, everything that they wore or worked with was color coded by groups. It was actually very nice because then they had no way to steal from each other which had been a little problem and source of tension in the past.

One thing about the groups is that there was always a constant source of tension, but I had no clue as to what I should do about it. They simply preferred to be segregated, and it wasn't bad at work because we kept them all in there own little areas, but every now and again we would have to come in and stop a fight because another worker got to close to the other groups area or because somebody chucked a rock at somebody from another group. They were very territorial like that. I didn't want to force them to work together because I didn't know if that would be worth the hassle of breaking up fights every five seconds. I mean these guys from the different groups did not like each other. They would go after each other all day especially if they were left unattended.

The one thing that I suppose I did to try and make things better was I brought in a good food contractor with the money from the brass who set up this little shop where the workers could go and sit at a table and hang out after work. They could buy things from the shop owner and it would come directly out of their paycheck so there were no arguments over thievery. For the first week the groups would all go there and you'd see the red group at the red table and the green group at the green table kind of eyeing each other. Each group had their own songs that they would sing at the top of their lungs. After some time I noticed that they all had started singing in unison and that they all new each others' songs, but sure enough they all were still at the same segregated tables. I suppose it wasn't all bad. At night they at least socialized and talked with people from other groups, but it was more like they were learning about the other

guys like you would study a science project or something. At night they'd all have fun together but sure enough the next day you could witness the tension still going on. The fighting during the day got a little bit better, but it didn't completely go away.

An interesting challenge that is coming up is I will be receiving a female sergeant into the unit. She will be deployed within two weeks. News about her arrival has spread out across the camp and the Iraqi workers are already mentioning their distaste of her arrival. She will be in control of them and they are none too happy about it. However, the female sergeant, SSG Kimmons has done a previous tour in Iraq where she worked at an ASP destroying ammunitions, so she has experience. Further, I spoke with her previous CO and he had nothing but praises for her mentioning that her background in demolitions is extensive. If deployed correctly I think she's going to be a vital asset to the unit. Just the other day I went to my Commander and told him about my dilemma. He said that it was an absolute necessity for SSG Kimmons to be assigned to my unit.

Barely a week had passed and I still hadn't figured out what to do about it and then a real time crunch presented itself. SSG Kimmons had showed up and was in an adjacent office waiting to see me in about 30 minutes. One of the senior interpreters walked in and said the tribal leaders from the Lebanon Street group and the Tiger Tribe group were outside (in their own separate circles) and had also asked to talk with me in about 30 minutes. With everyone present I figured it was best to bring everything out into the open in one meeting with everyone present in a group meeting. First, though, I thought I'd quickly talk to everyone one-on-one to understand their position.

Roles

SSG Kimmons

You are SSG Rhonda Kimmons, an experienced munitions expert with years of experience. You are on orders for this assignment and not at all happy about it. To be promoted to SFC, you need to work in your specialty, munitions, and supervise Soldiers. Yet the driver who picked you up at CAV Headquarters and drove you out to the ASP said you would be in charge of a HQ Admin section. You had just come from a staff assignment back in the states, on special duty in Division Headquarters. A second consecutive Headquarters type assignment would kill your career. That was why you wanted to talk with MAJ Wilkenson ASAP. The only redeeming value of the HQ Admin job would be that you would be supervising Soldiers – something you enjoyed doing and that would look good on your next performance evaluation. Yet you really needed to be out doing your Military Occupational Skill (MOS) leading soldiers in the proper identification, safe handling, and destruction of foreign made munitions. That was the only way you would remain competitive for promotion to SFC. Yet from what you could tell, working in your MOS would entail supervising a mostly Iraqi contract work force. Would that be looked upon as career enhancing? And what if supervision of the Iraqi's turned out to be

something you couldn't handle? The driver bringing her to the ASP already let her know the Iraqi's were opposed to working for a female sergeant. She could see two groups of the contract workers right outside the ASP HQ Admin office window, talking excitedly about something.

Even given your own doubts about supervising the Iraqi's, it irked you a bit that you were not immediately assigned to supervise the munitions destruction mission. Your former CO had put a good word in for you with MAJ Wilkenson. This was your second deployment to Iraq and you were very familiar with the type of munitions and the procedures for safely disposing of them. No one had ever gotten hurt under your supervision. A sense of discrimination was welling up inside of you. It had been a tough but rewarding career in the Army, but not without its obstacles to advancement for a woman in this career specialty. The one redeeming feature of the ASP assignment was its wide open spaces. You were a runner and when things got stressful you'd be able to put on your jogging shorts and T-shirt and take off on a long run. No obstacle to that here! While waiting to meet MAJ Wilkenson, you decided to step outside and get to know some of the Iraqi workers. It would be time well spent getting a direct sense of their concerns about working for a female sergeant. Perhaps you could then come up with a solution and bring it into the meeting with Major Wilkenson? All in all, you would be glad when this initial meeting with the Major was over. Then you could take off your long sleeved shirt and finish your work day in your military T-shirt, like the rest of the American Soldiers working around the ASP.

Ashon – Interpreter – Lebanon Street Tribe

You are Ashon, a former college professor who speaks both English and Arabic. Hired from Lebanon Street to work in the ASP, your ability to translate quickly elevated you to a position of trust with Major Wilkenson. As an interpreter, you get to live in privileged quarters near the Americans. On long trips to headquarters, you and Major Wilkenson have shared stories about your families. Once, when you told Major Wilkenson you had to go home because your son had suddenly gotten very ill, he arranged for your son to be taken to a hospital for treatment. He was operated on for acute appendicitis. If not for Major Wilkenson, you reasoned, your son would be dead. Thus you had come to play a careful, yet potentially deadly role. You provided the Major with information on what the tribal leaders were scheming over, while simultaneously providing information to your tribal leadership on what was going on at ASP Headquarters. That was how the Lebanon tribe had learned of the female Sergeant's assignment to the ASP. Your loyalties are split on the issue of the female Sergeant. You very much like Major Wilkenson and want him to succeed. Plus, with the future of Iraq so uncertain, Ashon may need Major Wilkenson's support for his family in the future. Such was your relationship with Major Joe, you and he had worked out a system of secret signals from previous negotiations. You would scratch your ear to let Major Joe know the other person was lying or hiding information.

Yet your upbringing also told you that it would be wrong for you, and those in your Lebanon Street tribe, to take orders from an American female Sergeant. If the Major puts the

female sergeant in a position of leadership, and you side too overtly with the Major, there would be negative consequences for you and your family as well. And there was the secret deal you had help strike that was making you and the Lebanon Street tribes involvement with the ASP a very profitable endeavor. You hoped your tribal leaders would not let their bias against women get them kicked out of the ASP. Then all that money would go to someone else! As you listened to your tribesmen discuss their strategy (while waiting outside of the Major's office), you knew you needed to get word to Major Wilkenson of their intentions. And figure out how you would maintain your trusted position of counsel to both the Lebanon street tribal leadership and the Major.

Tiger Tribe

You are the leadership of the Tiger Tribe, a proud tribe of farmers and herders from a region not far from Baghdad. Although life working at the ASP is ok, it could be better. Your tribe is generally looked down upon by the Lebanon Street tribe out of Baghdad – the dominant tribe working at the ASP. They viewed your people as less sophisticated than they themselves. Although there was plenty of food, shelter, and necessities to go around (from the Major's sale of the brass shell casing for the benefit of all workers), it always seemed like the Lebanon Street tribe had more of everything. The Major, too, seemed to almost unknowingly give the Lebanon Street tribe preference. When Ashon, one of the Major's favorite interpreters had his birthday, the Major decided to throw a party for him and his guests. Ashon, from Lebanon Street, invited only his tribe to the festivities.

To leave the ASP jobs on account of an American female sergeant, however, was not something the Tiger Tribe wanted either. The ASP work, although physically demanding, was something they were very good at. They informally kept track of how much ammunition they moved. On any given day the Tiger tribe was 20% more productive at moving ammunition than the Lebanon Street Tribe. And the men were earning good money which was making a big contribution to the rebuilding of their village and the reestablishment of crops and herds that had been damaged by the war.

The news of a female Army Sergeant supervising their work, however, was of major concern to the Tiger Tribe. The dress of women from their tribe was modest and conservative. From their previous interactions with other Americans, they knew the American females dress around camp would be an issue. No t-shirts, shorts or other dress that revealed skin other than the face and hands would be acceptable to the Tiger Tribe. If this female Sergeant was going to work with them in the bunkers (where the temperature hovered around 120 degrees F) she would have to remain fully clothed. Yet if the female sergeant was good at what she did, they would not completely oppose her supervision. It was dangerous work and members of their tribe had already been physically maimed – making it impossible to go back to farming and herding. The Tiger Tribes ability to accommodate the female Sergeant in their midst would depend greatly on

if they sensed proper respect was being given to them. Arrogant or aggressive behavior toward them could not be tolerated. Given their uncertainty about how things would work out with the American female, it might be best to align themselves with the Lebanon street tribe. That would force the Major to reconsider his assignment of the female sergeant. It was an option distasteful to the Tiger Tribe, but if something was to be gained from the alliance it might be worth it. If the Lebanon Street tribe was willing to spread around some of the extra money they always seemed to have on hand, keeping the American female sergeant out of the ASP bunkers altogether might not be such a bad idea. Before meeting with the Major, it seemed like a good idea to touch base with the Lebanon Street tribe on the issue of the American female sergeant.

Lebanon Street Tribe

You are the leadership of the Lebanon Street tribe – a group of Iraqi's all recruited from the same neighborhood in Baghdad. Your tribe consists mostly of middle to upper middle class professionals – teachers, small business owners and the like. Although you find the ASP work distasteful and beneath you, it provides jobs where there are none to be had in Baghdad. And the ASP is much safer than the streets of Baghdad. While working at the ASP, your tribe has steadily sought to increase its influence. Key to this influence was getting some of your members appointed as interpreters and admin workers for the Americans. Ashon, a Lebanon Street tribe member, was one of Major Wilkenson's most trusted interpreters. Due to this important position of influence with the Americans, the tribal leadership had brought him into their tight inner circle. Ashon had told them an American female Sergeant was coming to the camp. This infuriated the Lebanon Street tribe for a couple of reasons. First, in their culture women never gave orders or were in positions of authority over men. This would be unthinkable. Second, the female Sergeant would represent another person with power over them. Her presence could potentially upset all the work they had done to become the most powerful tribe on the ASP. Lebanon street workers in the HQ admin section were doctoring the books to show their tribe was more productive than the Tiger Tribe. And, unbeknownst to the Americans, the Lebanon Street tribe had also established a partnership with the contractors selling the ASP brass shell casings. They received a 10% kickback from the contractors on the sale of all brass. In return for this kickback fellow Lebanon street tribesman working outside of the ASP made sure no other factions attacked the convoys carrying brass to and from the point of sale. Standing outside the Major's office, you and the other tribal leaders keep your distance from the Tiger Tribe – country 'bumpkins' to you. Yet with so much on the line with this one decision, it might be worth talking to the Tiger tribe. Consider forming an alliance against the prospect of working for a female American Sergeant, and her discovering your tribes well guarded secrets.

Major Joe Wilkenson

You are Major Joe Wilkenson. You desperately want to keep the peace with your Iraqi work force while ensuring SSG Kimmons has meaningful work to do. One option, though,

would be to put SSG Kimmons to work in your Headquarters – away from the Iraqi workers. That is where you tentatively directed that she be assigned. That would solve everything. There was plenty of work to do just accounting for the destruction of the ASP and all of its ammunition. She could be of tremendous help there. And it would ‘keep the peace’ with the Iraqi workers. SSG Kimmons would also supervise a small admin section in this HQ assignment. Yet her experience in the identification and proper destruction of foreign munitions would vastly speed up the accomplishment of the primary mission out in the ASP and its associated bunkers - and make things safer for all concerned. A couple of workers had already been seriously injured mishandling the dangerous munitions. To put SSG Kimmons in charge of the Iraqi workforce, however, risked rebellion. Without the Iraqi workers, you would fall way behind and potentially fail at the mission. It was always possible to replace the Iraqi workers, but to do so would require you to stop your mission and conduct extensive training of the new hires – not an attractive option. The new workers would say anything to get a job but would probably still covertly object to taking orders from SSG Kimmons.

In spite of the tensions within the camp, you had developed a special bond with the workers from Baghdad – known as the Lebanon street tribe. They were an intelligent hard working group. Some of their tribal members had even been selected to be interpreters. One of those interpreters, Ashon, had proven to be extremely loyal and trustworthy. He also had the trust of the Lebanon street tribal leadership. You were sure they would bring him with them to discuss the issue of the SSG Kimmons. Such was his loyalty that you two had worked out a signal. Ashon would scratch his ear when he knew the person talking to MAJ Joe was lying – even if it was someone from his own tribe. The one card you felt you had in your hand (so to speak) was the idea you had come up with to make use of the brass shell casings. Your selling of the brass to provide good food, better accommodations, recreation, and necessity items was of great value to the Iraqi workers. Your work site was also secure – being in an isolated area away from the ongoing conflict and violence. Lately the level of violence in Iraq was on the increase and many Iraqis working for the US Army in the more populated areas were being threatened by various local factions vying for power.

You glance at your watch and realize in about thirty minutes SSG Kimmons and the two sets of tribal leaders will be knocking on your door. It suddenly occurs to you it might be a good idea to find out what each is thinking before you bring them all together.

References

To further research the topic of *Leading*, refer to FM 6-22, Army Leadership, Chapter 7.

Appendix D: Assessment Forms

Center for Army Leadership

Technical Report 2006-2

Advanced Learning Theories Applied to Leadership Development

Role Play Influence Ratings - Observer

Person Being Rated: _____
 Name of the Role Play: _____

Please use the following rating scale to rate the **frequency** with which this person used each of the following influence tactics during the negotiation:

- 1 – Never (This influence tactic was never used)
- 2 – Seldom (Only used this influence tactic once or twice)
- 3 – Moderately (Used this influence tactic more than twice, but it was still not the primary tactic used)
- 4 – Very Often (This was one of their primary influence tactics used)

Influence Tactic	Frequency
11. Pressure - Threatened other groups who did not support his/her group	
12. Legitimate Requests – Claimed they had the authority to influence other groups.	
13. Exchange – Stated they were willing to back off on certain demands if the other group was also willing to back off some of their demands.	
14. Personal Appeals – Appealed to the loyalty or friendship of another group.	
15. Collaboration – Offered to supply assistance or resources to help another group reach their goal.	
16. Rational Persuasion – Explained why a course of action would benefit the other group's bottom line; used logical arguments and factual evidence.	
17. Apprising – Explained his/her group's rationale behind all proposed decisions; explained the benefits of a solution to another group.	
18. Inspiration – Appealed to the values of the other groups.	
19. Participation – Asked for input from others on how to move forward; Asked for input on how to best meet everyone's goals.	
20. Relationship Building – Build a relationship of mutual trust with other groups; provided genuine praise to others when they raised good points during the discussion.	

Now please rate whether the use of the following influencing tactics **hurt**, had **no impact**, or **helped** this person during the negotiation. Please select the Not Used option if they did not use a particular tactic.

Influence Tactic	Hurt	No Impact	Helped	Not Used
21. Pressure - Threatened other groups who did not support his/her group				
22. Legitimate Requests – Claimed they had the authority to influence other groups.				
23. Exchange – Stated they were willing to back off on certain demands if the other group was also willing to back off some of their demands.				
24. Personal Appeals – Appealed to the loyalty or friendship of another group.				
25. Collaboration – Offered to supply assistance or resources to help another group reach their goal.				
26. Rational Persuasion – Explained why a course of action would benefit the other group's bottom line; used logical arguments and factual evidence.				
27. Apprising – Explained his/her group's rationale behind all proposed decisions; explained the benefits of a solution to another group.				
28. Inspiration – Appealed to the values of the other groups.				
29. Participation – Asked for input from others on how to move forward; Asked for input on how to best meet everyone's goals.				

30. Relationship Building – Build a relationship of mutual trust with other groups; provided genuine praise to others when they raised good points during the discussion.				
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Please rate the extent to which each of the following statements describes the influencing tactics of this **person**. If there was more than one person in this person's group, you should only focus on the influencing tactics of this **person**, not the group as a whole.

Outcome	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1. This person was able to influence the other groups the way he/she wanted.					
2. This person was able to get other groups to change their opinion because of his/her influencing techniques.					
3. This person adjusted his/her influence techniques when things were not going his/her way.					
4. This person used influence techniques that they should not use in the future.					
5. This person was effective in communicating his/her position to the other groups.					
6. Other groups understood his/her perspective within the negotiation.					
7. This person's negotiating was mostly constructive.					
8. This person treated other groups fairly.					
9. Others would look forward to negotiating with this person again.					
10. The agreement reached was satisfactory to this person.					

If there was more than one person in his/her group, please answer the following questions.

Outcome	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
11. This person used similar influence techniques to the other people in his/her group.					
12. This person was respectful of the other people in his/her group.					
13. This person accurately represented the opinions of his/her group.					
14. This person supported the opinions of the other people in his/her group.					
15. The other people in his/her group would look forward to negotiating in the same group as this person again.					

Role Play Influence Ratings - Others

Person Being Rated: _____

Name of the Role Play: _____

Please rate the extent to which each of the following statements describes the outcome of your negotiations with this **person**. If there was more than one person in a group, we are asking that you only focus on your negotiations with this **person**, not the group as a whole.

Outcome	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1. This person was able to influence the other groups the way he/she wanted.					
2. This person was able to get other groups to change their opinion because of his/her influencing techniques.					
3. This person adjusted his/her influence techniques when things were not going his/her way.					
4. This person used influence techniques that they should not use in the future.					
5. This person was effective in communicating his/her interests to the other groups.					
6. Other groups understood his/her perspective within the negotiation.					
7. This person's negotiating was mostly constructive.					
8. This person treated other groups fairly.					
9. I would look forward to negotiating with this person again.					
10. The agreement reached was satisfactory to this person.					

If there was more than one person in his/her group, please answer the following questions.

Outcome	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
11. This person used similar influence techniques to the other people in his/her group.					
12. This person was respectful of the other people in his/her group.					
13. This person accurately represented the opinions of his/her group.					
14. This person supported the opinions of the other people in his/her group.					
15. The other people in his/her group would look forward to negotiating in the same group as this person again.					

Role Play Influence Ratings – Self Ratings

Person Being Rated: _____
Name of the Role Play: _____

Please rate the extent to which each of the following statements describes the outcome of **your** negotiations. If there was more than one person in your group, we are asking that you only focus on **your** negotiations, not your group as a whole.

Outcome	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1. I was able to influence the other groups the way I wanted.					
2. I was able to get other groups to change their opinion because of my influencing techniques.					
3. I adjusted my influence techniques when things were not going my way.					
4. I used influence techniques that I would not use in the future.					
5. I was effective in communicating my interests to the other groups.					
6. Other groups understood my perspective within the negotiation.					
7. My negotiating was mostly constructive.					
8. I treated other groups fairly.					
9. Others would look forward to negotiating with me again.					
10. The agreement reached was satisfactory to me.					

If there was more than one person in your group, please answer the following questions.

Outcome	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
11. I used similar influence techniques to the other people in my group.					
12. I was respectful of the other people in my group.					
13. I accurately represented the opinions of my group.					
14. I supported the opinions of the other people in my group.					
15. The other people in my group would look forward to negotiating in the same group as me again.					

End of Training Evaluation – Influencing Tactics

1. Name: _____

2. Rank: _____

3. Are you a U.S. Army soldier? Yes No

4. Prior to this training, had you taken any other course or training related to influencing tactics?
Yes No

5. Compared to what you knew prior to this training, how much more did you learn about influencing others as a result of this training? (circle one)

No more A little more A moderate amount more A lot more

6. How much have your influencing skills improved as a result of this training? (circle one)

No improvement A little improvement A moderate improvement A lot of improvement

Please rate your satisfaction with each of the following aspects of the training:

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	N/A
7. Course content (e.g., influencing tactics)	1	2	3	4	5	6
8. HARBORCO role play	1	2	3	4	5	6
9. Class activity	1	2	3	4	5	6
10. RADWASTE role play	1	2	3	4	5	6
11. Homework assignments	1	2	3	4	5	6
12. Overall training	1	2	3	4	5	6

To what extent did each of the following help to increase your ability to influence others?

	To No Extent	To A Small Extent	To A Moderate Extent	To a Great Extent	N/A
13. Course content (e.g., influencing tactics)	1	2	3	4	5
14. HARBORCO role play	1	2	3	4	5
15. Class activity	1	2	3	4	5
16. RADWASTE role play	1	2	3	4	5
17. Homework assignments	1	2	3	4	5
18. Overall training	1	2	3	4	5

Please rate your agreement with each of the following statements:

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	N/A
19. I was motivated to learn the material in this training.	1	2	3	4	5	6
20. My negotiation skills improved between the HARBORCO and RADWASTE role plays.	1	2	3	4	5	6
21. My skills have improved as a result of this training.	1	2	3	4	5	6
22. My ability to influence others has improved as a result of this training.	1	2	3	4	5	6
23. I will be able to use the influence techniques that I learned in this training back on the job.	1	2	3	4	5	6
24. This training was unique in comparison to other training that I have participated ion.	1	2	3	4	5	6
25. I would recommend this course to other soldiers.	1	2	3	4	5	6

26. Do you have any additional comments about the course?

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